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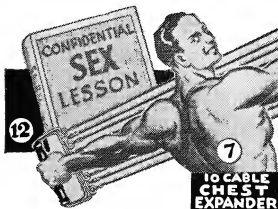
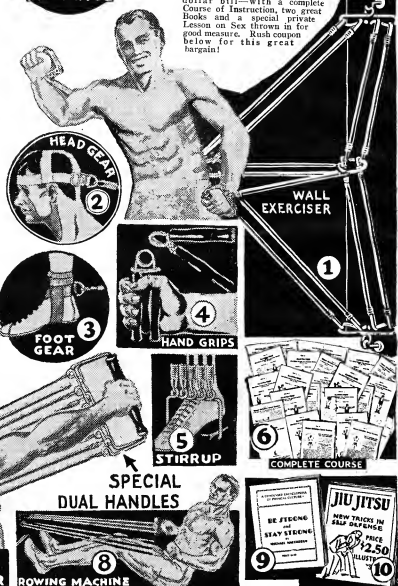
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AMAZING STORIES

Science Fiction

Vol. 7

February, 1933

No. 11

JULES VERNE'S TOMBSTONE AT AMIENS
PORTRAYING HIS IMMORTALITY

In Our Next Issue

BEYOND THE END OF SPACE, by John W. Campbell, Jr. This story was crowded out of the February issue, but we are sure that our readers will be glad to learn that Mr. Campbell's interplanetary story will appear in the March issue, and really his stories are well worth waiting for.

THE SCARLET STAR, by Jack Williamson. This is a typical Williamson story—full of suspense, starting with an inexplicable crystal that brings about strange results. It is what may be called a science-mystery story and is strongly recommended to our readers.

THE TOMB OF TIME, by Richard Tooker. This story involves the exploration of an enormous cave and adventures with strange beings and birds, and before the end, reaches a most exciting crisis. A dreadful ending for the explorers is strangely averted.

FLAME-WORMS OF YOKKU, by Hal K. Wells. This story also was crowded out of the February issue, but undoubtedly you will enjoy this delightful story which is devoted to strange beings on a distant satellite visited by explorers from our earth with a Martian pilot. It is a very novel presentation of life on a distant world.

And Other Unusual Science Fiction

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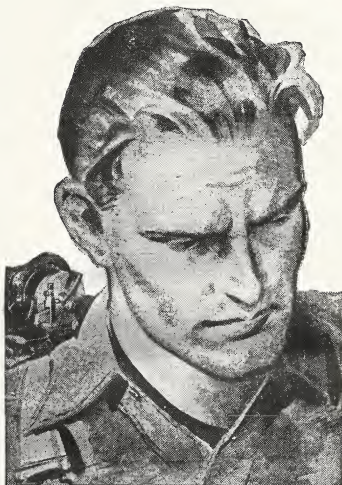
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on yourself



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GREENWAY, a bridge expert, Dr. Francis, Carmela and Reverdy are playing bridge. A hand is dealt . . . the bidding starts . . . a shot rings out . . . Greenway is dead!

The finger of suspicion wavers . . . Truxton, recently released from prison . . . Rosetti, Greenway's butler . . . Estelle, Greenway's maid . . . Verrano, a gang leader . . . All are suspected! Who killed Greenway? Local police flounder for clues. . . . Jim Merritt, free-lance detective, comes into the picture. . . . Greenway is discovered to be treasurer of a gang of dope smugglers. . . . The original bridge hands are redealt.

The bidding is different. . . . The previous bid was a signal for the murder! Read "Death Plays Bridge," a quick-moving, tantalizing murder mystery that will keep you in suspense and enthralled from beginning to end. A \$2 novel for 25c!



In the February Complete Detective Novel Magazine

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"Bloody Acres" by E. B. Mann

DANNY DUGAN halted at the lip of the bluff overlooking the Great Basin and looked down at the range that was his inheritance. Folks around Jasper called it "Bloody Acres" and gossip had it that the place was jinxed—that it was a man-killer. Five men had bought the ranch—one after another they had died—and the ranch had been returned to the Dugans.

Danny spurred his roan and galloped down into the basin . . . right into the discovery of Bill Simpson's body . . . directly into a feud between Colonel Ruppert and Douglas Arnold, rival ranchmen . . . straight into direct conflict with Whip Clayborn, slick with cards and slicker yet with a gun! In the basin, Danny found romance, intrigue and death awaiting him. Would his uncanny aptness with a gun see him through?

Read "Bloody Acres," a rip-roaring, thrilling tale of the West which will hold you spellbound throughout its entire 114 pages!

In the February Wild West Stories and Complete Novel Magazine

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by Irving J. Saxl, Ph.D.

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In the February Issue of *Radio News*



At All
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"The Man From Tomorrow"

by Stanton A. Coblentz

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Upon completion, he switches on the power . . . turns the dials on the time machine . . . and the mirrors portray happenings of centuries gone by! He sets the dials to the 23rd century and sees a peculiar, almost nude man! Suddenly the machine gets out of control . . . the lights go out . . . there is a terrific explosion! Turning on the lights, he discovers a stranger in the room . . . the 23rd century man he saw in the mirror!

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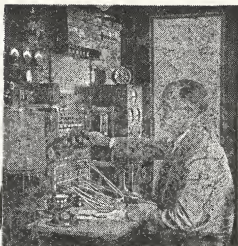
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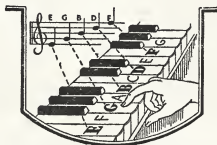
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AMAZING STORIES

THE MAGAZINE OF SCIENCE FICTION

VOLUME
7

FEBRUARY, 1933
No. 11

T. O'CONOR SLOANE, Ph.D., *Editor*

Editorial and General Offices: 222 West 39th Street, New York, N. Y.

Extravagant Fiction Today Cold Fact Tomorrow

Some Simple Laws in Nature

By T. O'Connor Sloane, Ph.D.

THE decimal system of numbers based upon the number ten is certainly a very poor one. The reason for such a criticism is that the number ten is divisible only by the number two and the number five. The number twelve is divisible by twice as many numbers and is certainly amenable to treatment to a much higher degree than is the number

ten. As far as we know the reason that we have the decimal system is because we have ten fingers calling the thumb a finger, so for the sake of arithmetic we might wish that we had the twelve appendages to our hands. The duodecimal system based on twelve would be far preferable to the decimal order, and it is rather curious that it seems to have a knack of making its appearance in present day arithmetic and in the various subdivisions used by mankind in their statements of dimensions.

Even the planetary system as affecting our earth brings us pretty close to the duodecimal order. The year has 365 days. If we could get rid of the five days it would be a complete duodecimal number for 360 is divisible exactly by 12. We might say that the year contains twelve thirty-day months with a surplus of only five days. The surplus spoils it to a certain extent but so does the one day extra in February spoil the uniformity of the years once every four revolutions of the earth around the sun.

In a circle we have 360 degrees, again our duodecimal number, and for some unknown reason man has divided the Equator into fifteen degree divisions thus cutting the day into 24 equal parts—again the duodecimal standard.

And now there is another sort of accidental relation in the duodecimal order. The apparent diameter of the sun is close to one-half of a degree. As it follows its apparent path around the earth the angular length of that path would be very close to 720 diameters so that the sun in its apparent lineal size falls very nicely into the duodecimal system. The same applies to the moon whose apparent angular size is about one-half of a degree. It seems a strange coincidence that the two heavenly bodies whose diameters can be measured with such accuracy should suffice as approximate integral divisors of the apparent path which they pursue. It is almost like having a mathematician's protractor scale in the heavens. There are other curious numerical relations in the planetary system. For some reason each planet follows in its path the curve known as an ellipse. In the ellipse there are two points called the foci which determine its contour. Each planet in the planetary system has its own ellipse and the sun occupies one focus of all of these ellipses. One extreme of the ellipse is the circle, but no planet pursues

an absolutely circular path. It follows that the planetary bodies in their motion around the sun vary in their distance from it and the closer they are the faster they have to travel in order to generate centrifugal force to prevent them from falling into it.

Many years ago a law curious for its simplicity was determined as affecting or as describing these varying velocities of a planet. The radius vector is the line connecting the center of the planet with the center of the sun, of course, an imaginary line. The law is that in its motion the radial vectors of a planet must sweep over the same areas.

This is a law curious in its simplicity, and in this rotation around the sun, maintaining their course by this extremely simple law of change of velocity, the planets protect themselves from annihilation, for if their rotation ceased they would fall into the sun, following at first one of the simplest of all laws, stating that bodies moved by a uniform force vary in speed with the time of falling. At the end of two seconds it will be falling twice as fast as at the end of one second. As the body approached the sun the attracting force would increase, so that the law of acceleration at constant force would no longer apply.

Galileo never evolved the law of the acceleration of falling bodies, though he did find out by experiments that the rate of fall of a body was independent of its weight. This last named law is one of the simple laws of nature. Think how complicated it would be if in calculations about falling bodies we would have to combat the law that a little thing would fall more slowly than a large one. So here again nature helps us by her simplicity, but lest it should be too easy, permits that resistance of the air to affect the rate of fall of bodies so that other things being equal, the smaller body will really fall more slowly. Galileo's discovery applies to falling in a vacuum and in his experiments, the conditions were such that the resistance of the air counted for very little and was neglected or unknown in determining the law.

Now returning to our planetary system we have Bode's law which can be found in any book on astronomy and is a wonderfully simple statement of the relative distances of the planets from the sun. It expresses them as a very simply derived arithmetical relation and comes astonishingly close to the truth, but falling down in the case of Neptune.

The fact that the earth is almost an exact sphere reduces the calculations such as used by navigators to simple proportions in spherical trigonometry and tells the navigator how to determine his shortest path. All his work is made very simple by the fact that the earth can be taken as a sphere. Its symmetry is his great help.

The Treasure of the Golden God

by A. Hyatt Verrill

(Serial in Two Parts—Conclusion)

THE second part of this serial brings it to a conclusion in this number. It is a wonderful detail of the experience of our explorers in the Palace of El Dorado and through the rivers and jungles of South America. It is a true study or presentation of the explorer's life.

Illustrated by MOREY

What Went Before:

TWO friends, one an archaeologist and the other a mining engineer, determined to take a trip into the jungles of the north of South America. The incitement was some golden ornaments which the archaeologist has received from that region, and without knowing it they find themselves following the example of the explorers of the days of Queen Elizabeth and unwittingly go in search of El Dorado. A wonderful presentation of their adventures in South America among the different tribes of Indians follows, and while the Indians are all friendly at first there is the ever-present danger of an outbreak, so that in a sense they are living on the edge of a volcano, as the proverbial saying goes. An outbreak finally occurs during a period of drunken revelry. They have seen gold used almost in profusion by the Indians for their personal adornment; however, the source of this gold is a secret known only to the Chief Medicine Man. But at last trouble occurs, brought on by the killing of one of the Indian tribe by the explorers' guide. This starts an avenger, the remorseless "kensima," and they are forced to flee for their lives. Two of the guides are murdered by the kensima, leaving the two men with only Joseph, the faithful Indian guide. Joseph makes a bark canoe, a "woodskin" as it is called, and they take to that and go down the rivers. Even their course along the streams is not free from molestation, as they are followed along the banks by savages of a strange appearance, and eventually they reach in safety a ruinous city uninhabited and which they believe has been, in the dim past, shaken to its foundations by a giant meteor. They start to explore the ancient ruined city, commenting on what the people were like who had built it, when they are startled by a short, half-smothered cough from a darkened recess.

PART II

Conclusion

ALL three stood transfixed, listening, filled with a strange sensation of superstitious dread. Then, once again, the cough sounded from the darkness, and Belmont's straining eyes discerned an indistinct figure moving stealthily in the room. Gripping Thornton's arm, he pointed, speechless, at the ghostly form.

Then Joseph's voice broke the spell. "Tigre!" he exclaimed. "Me smellum. Look seecum eyes!" It

was a jaguar, the "tigre" of the Spanish Americans.

In the blackness two greenish luminous spots glowed, and without stopping to think of consequences, Belmont raised his gun and fired. There was a deafening roar as the building reverberated to the report, bits of masonry came rattling down, and there was an awful, terrifying scream as Belmont was knocked head-over-heels by a huge black creature that catapulted out of the darkness. The engineer scrambled to his feet unhurt, but gasping. Thornton, too, was just rising from where he had fallen, and the Indian was seated a few feet away, gazing about in a dazed manner.

"What the—" began Belmont, and then gave a lusty shout. "Got him!" he cried, and sprang forward. Stretched upon the floor beyond Joseph, was an immense black jaguar.

"And you came blamed near getting all of us, too," growled Thornton. "For heaven's sake, don't ever fire that blunderbuss in these ruins again. You came near bringing the whole place tumbling about our heads. My heart stood still when the stones began to rattle down."

"Hanged if I thought of that," said Belmont contritely. "I'll be more careful in future. Say, are jaguars edible? Seems to me I haven't eaten for a week."

Thornton laughed. "I guess they're edible," he replied, "but scarcely palatable. We'll have to make the best of it, however, and be satisfied with jaguar steaks for our lunch."

Joseph dragged the big cat to the door, and was busy skinning the beast while the two white men went in search of fuel.

"We'll have to go outside the city for firewood," said Thornton, after they had hunted about for some time. "There's not a stick in the whole town."

"There are trees over beside the river," said Bel-



The head of the golden idol was that of a jaguar; but instead of the feline teeth, the opened mouth seemed to threaten us with its cavernous orifice. In one hand the image held a carved staff, the other grasped a golden club, while a third arm sprouting from the breast supported a golden swastika.

mont. "But it will be easier to carry the meat there than to bring fuel back here. Besides, we'll be near water. Come on, Joseph, bring along some of that meat."

The three men were not, however, compelled to test the edible qualities of jaguar flesh. As they entered the thicket a flock of tinamous* whirled up, and three of the birds fell to Belmont's gun.

"We won't starve, at any rate," he remarked, as he retrieved the birds. "I'll bet this valley is full of game, and plenty of fish in the river and lake. Not a bad place to stop in for a while. There may be treasure in the city, and there is a fortune in gold over the ridge to be had for the picking. I'm for staying right here for the present."

"It suits me," assented Thornton. "I'd like nothing better than to thoroughly explore the place and study the architecture. Perhaps there's treasure, and perhaps not. But there are plenty of archeological trophies. And if we can get away from here in a woodskin, there's no reason why we shouldn't carry quite a fortune in gold with us."

"I'm coming back to make a grand clean-up," declared the engineer. "That meteor opened up a vein that's a regular bonanza. Ned, old man, I'll take back all I ever said about this expedition being a failure. We've struck it rich."

With their lunch over, the three returned to the city, and once more wandered about the streets and buildings.

"There's plenty of good material lying about," remarked the engineer, "and a lot of these houses could be repaired and used. Won't the old fellows, who built this place, turn over in their graves, if they should see it made over into an up-to-date mining camp?"

"I object," declared Thornton. "You can take the gold and welcome, but I claim the city as my share. It's not going to be disturbed if I have my way. It's too valuable scientifically."

The other laughed. "Oh, all right," he agreed. "You're welcome to the old place. I expect it'll be cheaper to build corrugated iron and wooden shacks, anyway. These buildings are too blamed well put together to tear down."

As Belmont spoke, Thornton stopped and very carefully examined a low bush sprouting from a crevice between the stones.

"Hm, what do you make of that?" Thornton queried, turning to the engineer.

Belmont looked closely at the shrub. Concealed among its leaves was the main stem, which very obviously had been cut off.

"It'll be damned!" he ejaculated. "Someone has chopped it off. But of course that's impossible."

"Is it?" said Thornton, looking at his companion with a strange expression on his features. "I'm beginning to think that nothing is impossible here. That lantana bush has been cut off, and what is more, it's been cut recently—within a few weeks at the longest. Frank, human beings have been in this city within the month. For all I know they may be here now. The Lord alone knows what we may run into at any moment!"

Belmont whistled. "Great Scott, you don't mean those black cannibals may be here?"

"I don't know what to think," confessed the other.

"But whatever happens or whoever we see, don't shoot, unless to save our lives. Hold on! What's this?"

Again he halted, knelt down, and examined the stone pavement. "Here's more proof," he announced, pointing to a crack between the blocks where fresh earth showed. "Believe it or not, Frank, this street has been weeded. Look, there's the dry grass that was pulled from between the stones. No wonder the city is not overrun with jungle. The vegetation has been destroyed as fast as it grew. Ghosts or spirits don't chop down bushes nor pull up weeds. Men of some kind are caring for this city. It's darned mysterious, but an indisputable fact."

"Peai!" exclaimed Joseph, who had remained silently gazing at the evidences of human beings' presence. "Me tellum this place plenty peai."

Thornton glanced searchingly at the Indian. "There's something back of all this," he declared. "I'll wager you Indians know more about this place than you admit or than we think." Then addressing Joseph, he asked: "What you sabby? How come you sabby him peai? You sabby this place plenty long time, me say."

The Indian's eyes shifted uneasily, and he shuffled first one foot and then the other on the pavement. "No sabby long time," he replied at last. "All same, him peai. Me C'riht'an Buckman. Me fadder same way. All same, me fadder say long time gone this place peai. Long time gone one feller gold-man liveum this side. He same like God for Buckmen that time. Me sabby mebbe plenty Buckmen mebbe still likeum gold-man for god all this time. Gold-man plenty peai this place, one time. Where he liveum plenty peai same way."

"Same old El Dorado yarn," announced the explorer with a disappointed sigh. "It doesn't throw any light on the present mystery."

"I'm not so sure about that," declared the other. "It seems to me that talky-talky is kind of a limited lingo; but I think I got Joseph's idea. He means that some of the heathen Indians still think this place holy or sacred or taboo or something of the sort, and that some of them may hang around, kow-towing to El Dorado's home town just because he lived in it once."

"Of course that's what he means," agreed the explorer. "But that doesn't tell us who have been taking care of it. And it doesn't explain why, if Indians care for it and worship here, there are none here now. The only solution I can think of is that they don't live in this valley, but come here at certain definite periods to worship and clean things up."

"Perhaps old Billikins was the lad who weeded the place," suggested the engineer.

"I'll wager he wasn't the only peaiman who knew of it," declared Thornton. "It's more than probable that every medicine-man in Guiana knows the spot. To them it's like Mecca to the Mohammedans, and nothing on earth would induce them to divulge the secret of its existence to the whites."

"Likely as not," agreed the other. "I said I'd swallow anything after what I've seen. Hello, here's the end of Main Street with the Town Hall just where it should be."

They had come to the end of the avenue, and were facing a massive building just ahead.

"And the road leads straight into the 'Town Hall' as you call it," observed the explorer. "You're not so far off either, old man. That building is a temple of some sort. There may be interesting things inside."

* An edible, highly appreciated game bird, resembling the partridge and sometimes called by that name. It is closely related to the gallinaceous birds (chickens).

A short flight of huge stone steps led from the end of the street to an enormous doorway, and Thornton called Belmont's attention to the fact that the portal was wider at top than at bottom.

"Looks bottom-side up," commented the engineer.

"It has some significance," explained the explorer. "The walls also lean out, as did those of the building back there where you shot the jaguar. But all the others have perpendicular walls. Probably it's symbolic of sacred buildings."

They had now entered the doorway and found themselves in a short passage ending in a second flight of steps. Mounting these, they reached the top and halted, thunderstruck at the sight greeted them.

They stood upon the threshold of an enormous room, the walls and floors of which were of dark-green polished stone, and illuminated only by a single slit-like window in the eastern wall. The chamber was in the form of a gigantic swastika,* and in its centre, facing the door and window, seated upon a throne of black stone, sat a gigantic human figure of burnished gold.

"El Dorado himself!" half-whispered Belmont, when at last he found his voice.

"Yes. the Gilded One in very truth!" assented Thornton.

Joseph, however, said not a word. He was prostrate on the floor in adoration.

"Lord, what a chunk of gold!" gasped Belmont. "That is," he added, "if he is gold."

"No doubt of that," declared Thornton. "No other metal would have remained untarnished for centuries. Perhaps not solid gold, possibly thin plates over stone, or even hollow. We'll have a look."

Stepping across the temple floor, the two approached the golden idol. At first glance it had appeared human in form, but as they took in the details they discovered that it was a grotesque combination of man and beast. The head was that of a jaguar; but instead of the felines teeth, the opened mouth seemed to threaten us with its cavernous expanse. In one hand the image held a carved staff, the other grasped a golden club, while a third arm, sprouting from the breast, supported a golden swastika. The body and legs were human, although curiously distorted and decorated.

The Indian, who had now risen and had followed the white men, edged away to one side instead of approaching the idol from the front, and stood awed and silent in the farthest alcove or arm of the swastika-shaped room. Once they had recovered from their first amazement, Thornton and Belmont began to examine the gold god that towered for a dozen feet above their heads.

Suddenly the explorer caught sight of some objects resting upon the black throne at the idol's feet.

"Look at these!" he cried excitedly. "Flowers and fruits. Offerings to the god. They're wilted and rotten, but they have not been here long. Hello, here's something else!"

Poking among the decayed flowers, he drew out an elaborately carved wooden club.

"I don't know what tribe it belongs to," he muttered, examining the weapon. "But I'd like to know. It might solve the mystery of the identity of those who visit this place."

"Here, Joseph," he continued, as he stepped from the throne and started towards the motionless Indian. "You sabby what Buckmen makeum this?"

Meanwhile, Belmont, who had no interest whatever in ethnological problems, had clambered up on the throne and was tapping and examining the metal surface of the idol trying to determine if it was solid gold, the while mentally appraising its bullion value.

"Isn't he the ugly old boy?" he exclaimed, as at close quarters he looked at the repulsive features of the image. "Talk about those black cannibals! This chap's got them beat a mile for downright, cussed ugliness."

Then the third arm with its shield-like swastika attracted his attention, and reaching up, he grasped the superfluous limb. "Shake," old top," he cried humorously. "Glad to meet you! I'm—" The next instant he dropped the arm as though he had received an electric shock. The massive metal limb had swung downwards at his touch.

"By Jove!" he shouted, "Look here, Ned. This extra arm is loose." As he spoke, he peered around the idol to catch a glimpse of his companions. His foot slipped, he clutched wildly at the projecting arm, and the limb swung down and outward with his weight. As it did so, an incredible thing happened. Thornton and Joseph, together with the floor whereon they stood, shot swiftly to one side and vanished! Only a blank dark-green wall was visible where the two had been but a moment before.

Amazed, stunned, uncomprehending, Belmont stared at the spot where the two had been, speechless, utterly bereft of his senses. It was so sudden, so incredible, so terrifying, that he seemed paralyzed, unable to move or to utter a sound. Then, as the enormity of the catastrophe dawned upon him, he leaped down, and dashing across the floor, beat his fists upon the cold stone wall and shouted madly, calling his companions' names until he was hoarse.

But no answer, no sound, no reply came from the massive blocks of green stone. Only the echoes of his own voice mocked him. His friends were gone. They had been swallowed up, wiped out of existence in some weird, inexplicable, mysterious manner, and he was alone. Alone with that awful, hideous image in the ruined city of the dead.

With full realization of his overwhelming loss and absolute helplessness, came an overpowering insane, terrible hatred of the golden idol, and a ghastly, superstitious terror of the bestial thing. Cursing, he turned and rushed madly for the temple door, his one thought to reach the open air and escape from the dismal tomb-like place. But the next second, he uttered a mad despairing yell. There was no door. The walls rose smooth and unbroken from floor to summit. No crevice, no crack gave a hint as to where the door had been. He was caged, trapped, imprisoned, and he flung himself upon the stone floor, utterly hopeless and beaten.

Suddenly Belmont started. Trembling with mingled hopes and fears, he raised his head. His ears had caught the faint sounds of voices. Whether they were those of friends or foes he could not know. Then again he heard the sound, and with a glad cry sprang to his feet. The voice was unmistakable, it was Thornton's.

"Hello, Frank," came in muffled, far away words. "We're all right. Can you see me? I'm looking straight at you." A merry laugh followed.

* The swastika is a very ancient symbol of uncertain significance. It is traced back to the bronze age. It is depicted in the remains of ancient Troy. The bronze age is supposed to have antedated the historical age.

Belmont stared wildly about the vast room, mystified and perplexed. The words had come apparently from the centre of the temple; but there was no sign of the explorer.

"Hell, no!" he cried impatiently. "I can't see you. Where in thunder are you? What's happened?"

"We're here," came the answer with a chuckle of amusement. "Inside of El Dorado. Climb up and you'll see me. I don't know what happened any more than you do. First thing we knew we were shot into a small chamber with a flight of steps leading to a passage. We hurried along, hoping to find a way out, and came to a second stairway which brought us up here inside of the idol. You must have touched a secret spring or lever that started some sort of mechanism."

While Thornton had been speaking, Belmont had hurried to the golden image and had climbed up until he could peer into the horrible mouth. There was a small opening in the throat, and from this issued the explorer's words. But the aperture was too small and dark to permit Belmont to see the other's face.

"Great Scott!" he cried, as Thornton finished speaking. "It must have been the idol's arm. I grabbed it when I slipped and pulled it down. The door of this confounded place has shut tighter than a drum, too."

"That's it," declared Thornton. "The arm must be the lever connected with machinery inside here. 'Wait a moment until I have a look.'"

Belmont could hear his friend moving about within the idol. "I've found it," Thornton announced presently. "There is a lever in here with a chain hanging down to some place below. Move the arm up again, slowly, and we'll see what happens."

Belmont grasped the arm and slowly pushed it upward. It moved easily, and as he lifted it with one hand he glanced at the back of the room and at the wall where the entrance had been. Slowly and silently portions of the apparently solid stone walls moved, the door was exposed, and an opening also appeared where Thornton and Joseph had stood when they had disappeared.

"I'll be hanged!" cried the engineer. "The door's half open, and there's a hole in the back of the room."

"Will the arm stay where it is?" queried Thornton.

Very cautiously Belmont released his hold and the gold arm remained motionless. "Yes," he replied. "It doesn't move unless I push it."

"Good," said the explorer. "We'll come out. Better hold that arm though and don't let it move. It might slip, and I don't fancy being nipped by those moving walls."

The words ceased, and Belmont, holding the idol's third arm in place, waited anxiously for his companions to reappear. Minute after minute passed; he became nervous and trembled with fear that something had gone wrong. Then he heard the sounds of footsteps, and Thornton and Joseph stepped out from the opening in the rear of the room.

Belmont dropped the arm, leaped to the floor and hurried to them. "Thank God you're all right!" he cried fervently. "I felt certain that something else had happened to you in this devilish place."

"It took us longer to get out than to get in," replied the explorer. "There are several passages down there and we had trouble in finding the right one. It's too bad you had such a beastly scare, old man."

"It was more than beastly," declared Belmont. "I

never thought I'd ever see either of you again. I couldn't imagine what had happened, and when I lost my head and rushed for the door and found it gone, I went all to pieces. It was the confounded uncanniness of it all."

"I don't blame you," said Thornton. "It's a wonderfully clever piece of work—the machinery down below. Whoever built this place was an expert engineer and mechanic. But I presume it's very simple at that. The amazing thing is that any sort of machinery should remain in working order through all the centuries that must have passed since it was last in use."

Climbing upon the throne, Thornton moved the arm to its original position, and then descending, examined the door and the spot where he had first stood with Joseph. Then, returning, he pulled the arm down. Instantly the door closed and a strip of floor slid into the aperture, while the opposite wall moved forward and closed the opening. There was no jar, no jolt, not a sound, as the ponderous masses of masonry were shifted, and the closest scrutiny failed to reveal the joints cleverly concealed amid the intricate carvings that covered the stone work.

"It's devilish interesting," declared Belmont. "Let's have a look around down below. I'd like to see how the thing works. And besides, if the folks who lived here had any treasure, I'll bet they hid it down in the cellar."

The explorer hesitated. "We'll have to wedge that arm in place before we try it," he said. "A jar or jolt might shut the place up forever with us inside like rats in a trap."

"And how about those chaps who put the bouquet at old El Dorado's feet?" suggested Belmont. "Isn't there a chance that they might drop in and shut us up purposely?"

"No danger of that," declared Thornton. "It was in order to prevent unexpected visitors from entering the temple that the door was arranged to shut when the vault opens. The priests of the place didn't want to be interrupted and didn't want outsiders to know the secrets of the place."

By means of Joseph's bowstring, the arm was tied securely in place so that the secret aperture was partly open and permitted the men to pass through. Belmont had expected to find the underground passage dark and damp, but to his surprise he found it light enough to distinguish surroundings, and an investigation showed that narrow shafts extended downward from the roof of the temple through the walls. Thornton led the way to the stairs under the idol, and Belmont climbed up and peered through the mouth of the image as had the others. Then, having satisfied his curiosity, he and Thornton began to examine the machinery which operated the moving walls. By following the massive chain that hung from the inner part of the arm they found a bewildering maze of shafts, levers and chains. Belmont, however, declared that the whole affair was very simple.

"It's a sort of Spanish-windlass arrangement," he explained, "but in combination with duplex levers carefully balanced and adjusted by counter-weights and a toggle. I wonder what the metal is. It looks like bronze."

Thornton laughed heartily. "You're a fine one," he exclaimed. "You've been looking for treasure, and you don't recognize it when it's under your eyes. Those things are all gold, man!"

"No!" cried the engineer, unable to believe that Thornton was in earnest. "Quit trying to kid me, Ned. Gold is far too soft for such purposes."

"When pure, yes," assented the other. "But this is some alloy. I examined the chain when I was in here before, and I'll swear that it's gold. You're a fine metallurgist, Frank, not to remember that gold alloyed with certain metals—iridium for example, perhaps with platinum, can be made almost as hard as iron."

"Platinum!" shrieked Belmont. "Why, man alive, if all this machinery is just gold it's worth millions. But if there's platinum with it—good Lord, Ned, you'll have me looney in a minute!"

Almost feverishly Belmont examined the ponderous mechanism, following chains where they led from a lighted into a dark tunnel, trying to compute the weights of the various parts and their incredible value in terms of dollars.

"Well, I'll be hanged!" he cried out suddenly. "Don't tell me those old heathens didn't know a thing or two. No wonder the walls slid easily. They run on ball bearings!"

He had crawled through the tunnel into a fair sized, dimly-lit room, hewn in the solid rock, and as the others joined him, all saw that the moving sections of walls rested on runners of yellow metal, which in turn bore on metal spheres resting in metal grooves.

"Marvelous!" cried the explorer. "This city was built by an undreamed-of race, a race that was familiar with many of our most modern mechanical principles and discoveries. It outdoes anything ever before discovered in the entire world."

"I'll say it does," the other agreed. "Why, man, there are millions in bullion in these alone."

"And worth far more as archeological specimens," said Thornton quietly.

"Archeology be damned!" exploded Belmont. "Didn't you agree we were to go fifty-fifty on whatever gold we found?"

"On raw gold, yes," replied the explorer. "But the bargain was that I was to have all gold ornaments and other manufactured articles for specimens."

Belmont straightened up and grinned ruefully. "You win," he admitted. "But it looks as if there is about a thousand times as much manufactured gold as there is raw metal. But, good Lord, there's plenty for us both."

Thornton burst into hearty laughter. "I guess we needn't worry," he said. "We'll have to leave the idol and all this machinery where it is, anyhow. And you're the one who wins. You can take along all the nuggets we can carry."

As they had been speaking, they had retraced their way to the main passage and had entered the first opening they came to. It was a narrow hallway ending in a large vault or chamber, and piled high around the sides of the room were countless irregular objects gleaming faintly in the dim light.

"Holy Moses!" fairly shouted Belmont as he saw the things. "Talk about treasure! Man, man, am I seeing things? Why, there are tons and tons of ingots here. Millions, Ned, millions!"

"I haven't a doubt of it," assented Thornton, without the least excitement in his voice. "We've found the treasure vault of El Dorado. I expected we would from the moment I set my eyes on the city. But wouldn't poor old Sir Walter Raleigh have gloated over this?"

"Not a gold-darned bit more than I'm gloating," declared the engineer. "Whew! it makes my head swim. And, hang it all, we can't carry it off either."

"We can return for it, however," Thornton reminded him. "It's safer in this secret vault than in any bank."

"Yes, I guess that's so," admitted Belmont. "It's been here a long time and I reckon a few weeks or months more won't hurt it. Come on, let's see if there's more."

Turning, they entered the next room. This was smaller, and while no ingots were stored within it, there were several open stone chests along the walls. Hurrying to the nearest, Belmont glanced within it.

"Moons!" he cried. "Here's your loot, Ned. This chest is filled to the brim with the gold crescents the Indians wore in their noses. This place must have been the headquarters for the jewelry trade in the old days."

Every chest was, they found, filled with the gold moons and other golden ornaments, and Belmont commenced filling his pockets with them.

"I can carry these off, anyway," he muttered. "They're as good as double-eagles and easier to gather than nuggets. I guess there are enough of them, so you won't mind."

"Better wait until we're ready to leave the city," suggested Thornton. "There is no use carrying all that extra weight about with you. Besides, there are still other passages to explore. You may find still greater treasures."

"Right you are," agreed the engineer, as he began dumping all but a few of the moons out of his pockets. "But the sight of all this gold has nearly driven me crazy."

The next vault was empty, and only one more doorway could be seen along the passage. Passing through this, they were surprised to find that instead of a room there was a narrow winding passageway leading into stygian blackness.

"I wonder where this goes," muttered Thornton, as he led the way, feeling with outstretched hands along the walls and carefully testing each step as he advanced. "I wish I had a torch," he added.

"It would be the devil of a place in which to get lost," rumbled Belmont from the darkness.

"No danger of that," the other assured him. "The wall is unbroken, and we can readily feel our way back."

Presently a glimmer of light showed ahead. "We're coming out somewhere," remarked Belmont. "There are steps ahead there by the light."

The stairs were narrow and steep, and as the men ascended them towards the light, which came from above, they paused frequently to rest and regain their breaths. Once, as they paused, Belmont looked back and saw Joseph toiling up the stairway. "Hello," he exclaimed. "What the deuce is Joseph carrying?"

Then, as he realized what it was, he burst out laughing. "By Jove, it's one of those gold-bricks!" he cried. "He seems to have been cured of his fear of the place being peai."

The Indian, catching the engineer's meaning, grinned sheepishly. "Me tellum *mebbe* peai," he explained. "*Mebbe* peai, how can tell? All same, me sabby this feller catchum plenty money bimbeby."

The two white men fairly roared with laughter. "Bully for you, Joseph!" shouted Belmont. "You've an eye for the main chance all right."

"Talk about the Scotch," exclaimed Thornton. "Joseph is as canny as the best of them. But he's got some job on his hands, if he intends carrying that ingot with him wherever he goes."

Resuming their climb, they at last reached the head of the stairs and found themselves in a small room into which the sunlight was streaming through a rough hole broken in the masonry. Thornton stepped to the aperture and glanced out.

"Well, I'll be hanged!" he ejaculated. "I never would have guessed it. I'll wager you anything you wish that you don't know where we are, Frank."

Belmont stepped to Thornton's side and uttered an exclamation of surprise and wonder. Beneath them was a spacious room, and, lying on the floor in plain view, was the jaguar's skin. They were gazing through the opening in the cornice made by the meteor in the room where Belmont had killed the beast.

"It's darned funny and interesting, but devilishly disappointing," declared the engineer. "Who'd have thought that after all that long hard climb we'd just come out here? The fellows who made that tunnel were either crazy or practical jokers. I'll take back what I said about their having brains. What's the use of such a fool idea?"

"I presume this building was a sort of annex to the temple," replied the explorer. "Probably the priests would disappear from the temple and reappear mysteriously here, or *vice-versa*. Or it may be that they kept watch of what was going on from peep-holes up here and from the idol's mouth. Or again, they may have worked an oracle stunt, much as did the old Greeks and Romans. Odd, though, that there doesn't appear to be any means of descending directly from here. We'll have to retrace our way. It's getting late so we'd better hustle and find a place to camp."

Back down the long stairway and through the dark tunnel the three made their way. They reached the passage beneath the idol; once more came out in the temple, and Belmont, detaching the string that held the idol's arm, moved the limb downward and leaped to the floor.

"Now for a hunt, a fine dinner and a quiet night," he said. "I've seen enough to call it the end of a perfect day."

Leaving the streets, they hunted through the thickets. But it was some time before they found game in the shape of several quail, which Belmont shot. As the two white men built a fire and cooked their evening meal, Joseph, with bow and arrows, searched for fish in the river, and by the time the quail were broiled, he returned with two fine *pocm** fish.

"I suppose we're foolish, not to sleep in one of the buildings," remarked Thornton, as they ate. "It will be cold out here without coverings, and it may rain."

"Nix on the ruins for me," declared the engineer. "I'm not nervous and I'm not afraid of ghosts, but somehow, I'd feel as if I were sleeping in a graveyard or a tomb if I slept in that city."

"I feel a bit that way myself," confessed the other. "It's strange that I should, too. I've slept in ruins before, and I've never felt the same sensations. I presume it's the mystery of those human beings having been here. Well, if we keep a good fire going, we can manage. It isn't the first time we have slept in the open, and it won't be the last."

Joseph had gathered palm leaves and had constructed a rude shelter which would serve to keep off possible showers, and a layer of the same leaves had been spread upon the earth. The tired men stretched themselves out and in a moment Thornton was snoring lustily, while the regular breathing of the Indian proved him to be dead to the world. Belmont was tired and drowsy, but he could not fall asleep. He was keyed up, nervous, and started at every faint sound from the river or thickets. From the ruined city came indistinct noises for which he could not account, and he found himself listening with straining ears, peering into the darkness, his scalp a-tingle, and his pulses throbbing, as if expecting something to happen. And he could not prevent his mind from dwelling on memories of the black cannibals, the horrible sight of the peaiman's roasting body, and other unpleasant matters. But at last, by a tremendous effort of will, and cursing himself for his foolishness, he turned over, closed his eyes and dozed off.

Suddenly he jerked upright. Something had aroused him again. Vaguely in his mind he seemed to have heard a strange humming sound. Then, before he had fully regained his senses, there was a deafening crash from the distance, followed by a faint, far-away scream.

"For God's sake, Ned, wake up!" he shouted, shaking the explorer.

"Wha-what's the matter?" demanded the other sleepily, as he sat up rubbing his eyes.

"Damned if I know," replied Belmont. "Something woke me—some strange noise. Then there was a terrific crash and a scream."

"And you rouse me out of a fine sleep for that!" exclaimed Thornton disgustedly. "Just a tree falling somewhere, or perhaps some old wall in the city."

"But some one screamed," persisted the engineer, "and there was a darned queer humming noise, too."

"Just the crackling of branches as the tree fell," yawned Thornton. "And the yowl of some beast frightened by it. For heaven's sake, go to sleep."

"Me sabby tree makeum fall," muttered Joseph, who had also been aroused. "Me hearum."

Chagrined that he had let his nerves get the best of him, Belmont again threw himself down, but while his comrades were soon sleeping soundly, he remained awake. How long he lay there, peering into the darkness he never knew. Suddenly he started up. His tensed ears had caught the sound of a breaking branch, the noise of some creature forcing its way through the brush.

Grasping his gun, he listened, ready for action. Then another sound issued from the darkness—the panting, labored breath of some creature, and hurried footsteps seemingly close at hand. Not knowing what to expect, Belmont rose silently and peered searchingly in the direction of the sounds, his gun cocked and ready. The next instant the surrounding thicket parted, a dark form cowered in the shadows, and Belmont threw up his gun. Before he could pull the trigger, there was a frightened cry and the lurking figure sprang forward into the moonlight.

Belmont stood gaping, round eyed, with sagging jaw, trembling from head to foot at thought of how near he had been to shooting. Before him stood a human being. It was no Indian, for it was clad in khaki shirt and breeches, the garments torn and ragged. The gun dropped from the engineer's nerveless hands, and as

*A food fish confined to Africa and South America.

the strange figure lurched towards him, he uttered a strange astounded, inarticulate cry. The face, white in the moonlight, was ghastly with blood, and long fair hair streamed over the shoulders. It was a woman—and white!

Belmont leaped forward and caught her as she swayed.

"Oh, thank God you're white!" gasped the girl, as she fell fainting in his arms.

Thornton and Joseph, aroused by the voices, sprang to their feet. "What the——" the explorer's words ended abruptly, as he caught sight of the limp figure in the other's arms. Then, as he saw the long blonde hair and the pale, blood-streaked face, "Lord!" he gasped, "It's a girl!"

Very gently, Belmont deposited his burden on the couch of palm leaves, and tenderly bathed the blood from her features. "Thank heaven she's not badly hurt," he announced. "Only a cut on her forehead. Now where in blazes do you suppose she came from? Great Scott, do you suppose it's possible she's the one who's been looking after the place and putting flowers at the idol's feet?"

"I'll be hanged if I know what to think," replied Thornton, who had been standing gazing at the girl as if in a dream. "All I know is that she's a white woman, but the Lord alone knows who she is or how she got here."

"She talks English, too," announced the engineer. "By Jove, perhaps she was a prisoner of the Indians."

"Mysteries on mysteries," exclaimed Thornton. "She's coming to. We'll learn the truth in a moment."

The girl's chest heaved as a deep breath shook her, her eyelids fluttered open, and her clear-blue eyes opened in wide amazement as she stared, half-frightened, into the bronzed, bearded faces of the two men. Slowly a look of comprehension and relief swept across her face, and her lips parted in a smile. With an effort she tried to sit up, but Belmont gently restrained her.

"Don't exert yourself," he cautioned her. "Let me bandage this cut first."

"I'm—I'm all right now," she murmured, and the sound of a woman's voice thrilled the two men strangely. "I was terribly frightened," she continued, "and—and I think I must have lost my head. You're English, aren't you?"

"No, Americans," replied the engineer, as he bandaged the wound with a strip of cloth which he nonchalantly tore from the girl's own garments.

"Americans!" she exclaimed in evident surprise. "Oh, that's all the better. I'm American, too."

"But where on earth—how did you get here? What happened?" queried Thornton.

"In the plane," was the girl's astounding reply. "It crashed——"

"Plane!" cried Belmont. "Anyone else in it? Anyone hurt or killed? Where is it?"

She shook her head. "No, I was alone," she smiled. "It's over by the lake. You see——"

"You're a fine pair of bushmen," exclaimed Belmont, interrupting her words and addressing Thornton and the Indian. "Said a tree fell and a jaguar howled. It was the plane I heard. Pardon me for interrupting you, Miss——?"

"Lee," the girl supplied. "It was my brother's plane—or rather the Bauxite Company's. Ted was taken with fever at Akyma and couldn't fly. They wanted some important papers from Surinam—from the Marowynne properties, in a hurry, and so I took the plane. I've flown

it often before. As long as the plane held I was safe."

"But this place is miles from Akyma or the Marowynne," said Thornton, a puzzled frown on his forehead. "How did you get so far from your course? And why on earth did you start from Akyma at night?"

"I didn't," smiled the girl. "I reached the Marowynne safely and started back. Then I had motor trouble and was forced down at Berbice. By the time I could hop off again it was nearly dark, but I thought I could make Akyma before it was too dark to see—it's light so much longer at an altitude, you know. But I must have lost my way, somehow. The country didn't look familiar, and then I saw a town. I knew it wasn't Akyma, and I'd never heard of any large town in the bush, and I was puzzled because there were no lights in the houses. But I knew I was lost and must come down. Then I saw your fire and the lake seemed a nice place to land, and I came down. But something was wrong. I saw a big white wall before me, and the next minute the plane crashed. When I came to I was dazed and my face was covered with blood, and I was horribly frightened, because everything was so still and sort of dead and mysterious. Then I remembered the fire and knew someone must be here, and I ran towards it. But I never dreamed I would find white men. And, Oh, I'm so glad it's you and that you are Americans."

"You poor little thing!" exclaimed Belmont. "No wonder you were scared. But you're safe and all right now. I guess the Bauxite Company will have to wait a while for their papers, though. Now just rest until morning and you'll be as well as ever."

"Are you hungry?" asked the matter-of-fact explorer. "Perhaps I am," she confessed. "But really I'm so shaken that I hardly know."

Thornton turned to give orders to Joseph to prepare some food. But the Indian, who instinctively associated breakfast with rising, and who had not exhibited the least surprise at sight of the girl, was already broiling fish and quail over the fire. In a few moments he approached with the viands.

"It's not much," apologized Thornton. "No salt or seasoning, but the best we have."

Miss Lee, however, was not finicky. She had eaten nothing for many hours, and she declared that the food was delicious and ate heartily.

"Now, please tell me where I am and all about yourselves," she begged, as with a satisfied sigh she finished her impromptu meal. "I can't sleep, and I know there is something strange and mysterious here. I can just feel it."

"Go ahead, spin the yarn, Ned," urged Belmont.

The girl listened with wide eyes and parted lips as Thornton rapidly told her of their adventures. As he mentioned the cannibals—omitting, however, some of the most gruesome details, she shuddered and glanced nervously about.

"It's simply wonderful!" she cried, as he ended. "And to think that this is really that fabulous city! I've heard about it—Ted used to joke about searching for it with the plane someday, and now I've tumbled right into it. Won't he be envious!"

"Thank the Lord you were not killed," exclaimed Belmont. "And it's a miracle you were not," he continued. "No wonder that ridge around the lake fooled you. From the air it would look like a flat beach, of course, and no one would ever guess that it stuck up sixty to one hundred feet above the water. It seems

to me the only way to get to this place is to tumble into it. We practically fell in ourselves. Now the question is, how can we get out?"

"We'll start building a wooden skin today," declared Thornton. "I had planned to remain for a time to study the ruins thoroughly. But Miss Lee's arrival changes our plans. We must get away as soon as possible. They'll be worrying over her at Akyma, and there are the papers to be delivered."

"By Jove!" ejaculated the engineer. "I've an idea. Do you think the plane is wrecked beyond repair, Miss Lee?"

"I really don't know," she assured him. "I didn't stop to examine it. But I know the propeller is smashed and probably the motor is ruined. It was a Wright Whirlwind, and must have hit the bank."

"Possibly the hull is uninjured," suggested Thornton. "I judge it is an Amphibian. If so, we may be able to use it in place of a wooden skin. We'll find out what shape the machine is in, as soon as it is daylight. That won't be long now, the sun is already rising."

As they had been talking, Joseph had slipped off with his bow and arrows, and he now returned with several fish. Breakfast was soon over, and the four then made their way to the wrecked plane, which they found with its nose buried deeply in the side of the lake's rim. The forward portion was a hopeless wreck, and Thornton's hopes of finding the boat-like pontoon in serviceable shape were dashed, for the frail hull was split from end to end and quite beyond repair.

"Now that I see the wreck I'm convinced that it was by a miracle that you escaped death, Miss Lee," declared the explorer. "Only the fact that you were thrown clear of the machine saved your life."

"Please don't call me Miss Lee," laughed the girl. "It sounds horribly formal and unfriendly. I'd much rather be called Kathryn, or Kitty or Kit—anything as long as it's not Kate."

"Good!" agreed Thornton. "Kathryn is a favorite name of mine."

"And I'm crazy over Kitty," added Belmont.

"Name or girl?" queried the other.

"Both," declared the engineer, looking straight into the girl's blue eyes.

She laughed merrily. "You are both awfully nice," she declared, "and I'm so glad you are not terribly severe and serious—the way I thought all explorers were. And I'm going to reciprocate and call you Frank and Ned—if you don't mind."

"Not a bit," replied the two in chorus.

"Perhaps there's something in the plane that we might use," she reminded them, a moment later. "There's a tool-kit and compass and the instruments and a thermos bottle and some other things."

"And the papers also," said Thornton. "Come on, Frank, let's salvage all we can."

The plane yielded a great deal that would prove of inestimable value to the party, both while in the valley and on their proposed journey towards civilization. Joseph was loaded down as he made trip after trip back and forth from the plane to the camp, but at last everything of value had been salvaged.

Then, as the Indian prepared to commence making a wooden skin, Thornton suggested that they should visit the city and make the most of their opportunity.

"Sure—let's go over to the National Bank," laughed Belmont. "Miss—Kitty will want to see old El Dorado

and the treasure vault. And we might just as well carry away some of those ingots and a lot of the gold moons."

As they strolled along, Belmont exhibited the jaguar skin, pointed out the broken cornice, and explained how he and Thornton had reached it by way of the tunnel. She was, of course, tremendously interested and was filled with wonder at all she saw. And when they reached the temple, and she gazed upon the golden idol, she was overwhelmed with amazement. Thornton described the moving walls and explained how they were operated.

"I'll give a demonstration," announced Belmont. "Just watch the walls when I pull down the arm."

As he spoke, he climbed upon the throne, and the next instant leaped back, staring at the base of the idol. "Well I'll be —" he burst out and checked himself. "Look here, Ned!"

The others hurried to him and Thornton cried out in surprise. Piled about the god's feet were freshly cut flowers, a basket of fruit, and a roasted wild turkey.

The explorer emitted a long whistle and glanced suspiciously about. "Those things were not here yesterday," he declared. "Someone has been here during the night."

"I'll say he has," agreed Belmont. "This thing is getting on my nerves. Where in blazes do the rascals hide themselves during the day?"

"You mean Indians have been here?" asked the girl, with a startled glance about the temple, and drawing closer to the two men.

"It looks that way," admitted Thornton. "Those offerings most certainly were not here yesterday. But whoever placed them there had no wish to be seen. I don't think there is any danger. All the Guiana Indians are peaceful. They—"

"The deuce they are," interrupted Belmont. "How about those cannibals?"

Thornton smiled wryly. "I'll have to make an exception in their case," he confessed. "Besides, I don't admit they were Guiana Indians. They may have been in Brazil. As I was about to say, whoever has been here must know of our presence, and yet they have not molested us. I think there is only one man, a peaiman probably, who is paying devotions to his ancestral god and is anxious to evade observation."

"It's blamed spooky and mysterious, anyway," declared the engineer with a forced laugh. "I don't like the idea of some chap sneaking about in the night. But I guess you're right about his being harmless. He has had plenty of chances to get us in the night if he wanted to. Anyway, we should worry. Now watch, Kitty, and I'll show you the combination to El Dorado's safe deposit vault."

Once more climbing upon the throne, the engineer pulled down the arm, the door closed, and the wall opened as before.

"It's simply marvelous!" cried the girl. "And no one can get in here while we are down below. Oh, I'm so glad I crashed and found you. It's a wonderful adventure."

Descending the stairs, the three reached the space below the idol, and Kathryn clapped her hands with delight as she peered through the god's mouth. Then she was shown the treasure, and she begged Belmont and Thornton to take her through the tunnel to the building where the jaguar had been killed. This time they were

equipped with an electric torch salvaged from the plane, and their progress through the dark passageway was easy and rapid. Thornton had remained behind, anxious to devote every minute to a study of the carvings and other features of the temple, and Belmont hurried on with the girl. As they mounted to the top of the long stairway, and Belmont glanced out through the broken cornice, a half-smothered cry rose to his lips, and leaping back, he raised his hand in a gesture for silence.

"What is it?" "What did you see?" asked the girl in a whisper.

Very cautiously the engineer approached the aperture and peered through a crack. Then he beckoned to Kathryn. Stooping, she looked through the crevice and could scarcely suppress a cry at what he saw. Below, and examining the jaguar skin, was a painted naked Indian!

"Come," whispered Belmont. "We must tell Thornton. That's the fellow who has been sneaking about. He may be harmless, but he looks blamed dangerous to me."

As they burst into the temple, Thornton looked up, and knew instantly that something was wrong. Before he could frame a question, Belmont was speaking.

"There's an Indian out there," he exclaimed. "He was looking at the jaguar's skin. He must be the one who left the flowers and things. Come along and look at him. He didn't see us and I don't know whether or not he's a savage."

Before he had ceased, the three were hurrying along the tunnel, but when they at last reached the broken cornice the room below was deserted.

"If Kathryn hadn't seen him, I should think you had been seeing things," declared the explorer. "What did he look like?"

"Like an out-and-out savage," replied the engineer. "I'm afraid I can't describe him very well. He was light colored—sort of yellow, painted like a barber's pole, and wore a sort of skirt about his middle."

"And he had on tooth necklaces and gold bracelets and a feather crown," added Kathryn.

"That description might fit any Guiana Indian," commented Thornton. "Perhaps we can find him if we go outside. He'll be peaceable no doubt. And there is a chance that he has a canoe or that he can guide us out of this place."

"Hold on," exclaimed Belmont. "I'm going to take another look from the tip-top of this place. If there are any Indians about I can see them from there. Somehow I can't feel so sure about that chap being alone or so everlastingly friendly."

Climbing up the stonework, the engineer reached the top of the building and swept valley and city with searching eyes. But there was nothing suspicious, nothing to cause alarm. Down by the river he could see Joseph busy at the woodskin, but not another living being was in sight.

"No one but Joseph about," he announced, as he clambered back and joined the others. "I'm beginning to think we saw a ghost. Seems to me, if that Indian had been flesh and blood, he would have gone over for a pow-wow with Joseph."

"Not if he was a peaiman and didn't wish to be seen," Thornton reminded the other. "He's probably far more afraid of us than we are of him. He may even think we are supernatural beings, especially if he saw us go into the temple and saw the door close after us."

This new mystery of the lone Indian had driven all thoughts of treasure from the minds of the three, and they hurried through the passages to the temple. Then the idol's arm was swung up, the door opened, and they started up the avenue, towards the building where the Indian had been seen.

But no trace of his presence could be found, and as it was almost noon, they made their way towards camp. Belmont strolled off for a hunt, and soon after the others heard the report of his gun and he returned carrying a big pheasant-like bird. They found the woodskin well under way, and Joseph assured them that it would be completed by nightfall. All were in high spirits as they dined and chatted, and planned their approaching journey.

"We'll get off tomorrow," declared Thornton, "and —" his words were cut short by a low cry from Joseph. There was a strange, swishing sound, and a long arrow thudded into the earth by the explorer's side.

Belmont seized his gun and leaped to his feet with a sharp command to Kathryn to lie flat on the ground. With keen eyes the two men searched the surrounding thickets, while Joseph, bow and arrows in hand, vanished as if swallowed up by the earth. For a breath, all was silence. Not a leaf rustled, not a twig cracked, and the two white men stood tense, every nerve tingling, every sense on the alert, waiting for the next hostile arrow, for some sign of the enemy, who they knew must be lurking near.

Kathryn broke the silence. "Ned," she whispered, rising to a sitting posture, "take this, you are unarmed."

Thornton glanced down. She was holding out a vicious-looking automatic. "Ted made me carry it," she explained. "But you can use it better than I. You can talk Indian, Ned. Can't you call out and say we are friends?"

Thornton grinned as he took the proffered weapon. "I'll try," he muttered. Then, in a loud clear voice, he shouted the peace greeting in the Akawoia tongue, in Carib and in Taruma. But there was no response. Then, suddenly and without warning, a guttural cry of pain issued from the thicket, and half a dozen six-foot arrows sang through the air. With a stifled cry, Thornton lurched to one side as a searing pain shot through his left arm. At the same instant, Belmont's gun roared. At the report, a wild, blood-curling cry rang out, there was a crackling of brush, and Thornton checked himself just in time to avoid shooting Joseph who leaped, wild eyed, into the camp.

Forgetting talky-talky in his excitement, the Indian ripped out a rapid string of Arekuna words.

"There's a couple of dozen of them," cried Thornton, as Joseph finished. "Joseph has wounded one, and the others have drawn off, afraid of your gun. But they'll come back. Our only hope is the temple. Come on. Look after Kathryn, Frank. I'm winged!"

Turning, the four rushed towards the city, dashed up the avenue, and reached the temple steps. As they bounded through the open door, they turned and looked back. Rushing after them yelling like fiends, came a crowd of painted savages, brandishing bows and clubs, with gaudy feather-crowns waving above their heads, with the sun glinting on golden necklets, nose ornaments and arm-bands.

Seizing the girl and lifting her from her feet, Belmont leaped within the temple, dropped Kathryn upon

the floor, sprang to the throne and pulled frantically at the gold arm. Silently, slowly, the massive stones moved, and as the first of the savages reached the foot of the steps, the door shut tight with a slight jar.

"Whew!" exclaimed the engineer, as he leaped down from the idol. "That was a close shave. Say, Ned, I thought you said the Guiana Indians were peaceful. A dashed peaceful looking lot those fellows are."

"Don't hit a man when he's down," muttered the explorer with a wry grin. "But get a bandage around this arm of mine. It's bleeding like a stuck pig."

Before Belmont could move, the girl was at Thornton's side. "Oh, you poor man!" she cried. "Let me fix it."

Flushing scarlet, she turned her back for an instant, and then wheeled about with a lacy bit of intimate feminine apparel in her hand. Belmont had meanwhile ripped away the sleeve about the wound. Very deftly the girl bound it with the fragment of her lingerie, and bandaged the whole with strips torn from Thornton's ragged shirt.

"It's only a flesh wound," declared the explorer, as she worked. "And I don't think those arrows were poisoned."

"Lucky dog," growled Belmont. "I've half a mind to go out and let them fill me full of holes, that is, if Kitty will bandage me up that way."

The girl blushed furiously. "Fran—Mr. Belmont, you're perfectly horrid," she declared, but the expression of her eyes belied her words. Then, "Did you shoot one of them?" she asked.

"I don't know, but I hope so," replied the engineer. "I had a glimpse of something moving and let drive with both barrels."

"Me tellum you all same one damn fool," burst out Joseph, so suddenly and explosively that all jumped. "Me tellum you make for shootum me."

"Wha—what the——" began Belmont, and then sprang to the Indian's side. Joseph had turned his naked bronze back, and for the first time the others saw that it was covered with blood.

"Great Scott!" cried Belmont. "You don't say—Jove, that's too damn bad, Joseph. Here, let me see it. I'm an everlasting da—darned fool."

The Indian grinned, as Belmont and Thornton, with Kathryn hovering about, wiped the blood from his skin. "Me all right," he muttered. "That feller shots no make killum Buckman."

"It's lucky he was far enough away so the shot scattered," said Thornton, as he picked the shot from under the Indian's skin. "And still luckier that he was back to so he didn't get the charge in his eyes."

"I'll never forgive myself," declared Belmont contritely. "But say, how on earth did I get a shot into his forehead?"

"Him feller arrow," muttered Joseph, as if an arrow wound was of no consequence. "Him no do for kill. Him arrow no gotum poison."

"That relieves my mind," said Thornton, as the last shot was picked from the Arekuna's back, and the wounds, as well as the arrow cut, were bandaged.

"I was a bit afraid that those rascals might have used poisoned arrows."

"Who the deuce are those rascals, anyway?" asked Belmont. "If all the Guiana redskins are so peaceful, why should they jump us that way?"

"It's just one more mystery added to the others," re-

plied the explorer. "I think probably they resented our presence here. I confess I don't know who they are. Possibly Joseph recognized them."

But the Arekuna declared the enemies were tribesmen such as he had never seen before, and insisted suddenly that they were "peai."

"We're snug and safe enough here, at all events," said Belmont. "I wonder how long they'll hang around outside."

"Yes, we're safe enough—from our enemies," agreed Thornton. "But we're in a bad fix. We're shut in here without water or food. Not much better than being out where they can get us."

Belmont whistled. Then he chuckled. "Not on your life, are we without food," he cried. "We'll rob old El Dorado of his grub. Food fit for the gods ought to be good enough for mortals."

"I'd forgotten that," confessed Thornton. "Yes, the fruit and meat will keep us alive for a day or two. But water—that's the most important matter."

"Oh, how lucky!" cried Kathryn. "I just remembered that I left the thermos bottle full of water up there where we saw the Indian this morning. I was so excited I forgot all about it."

"You careless kid," laughed Belmont. "You ought to be kissed for that."

"You'd better not try," retorted the girl. "And you can't talk about being careless. Just look at Joseph's back when you need a reminder."

"I guess that will hold me for a while," said the engineer, pretending to look crestfallen. "But all joking aside, this water business is serious. The thermos bottle won't last us over twenty-four hours at the most."

"Well, don't let's begin crossing bridges before we come to them," said Kathryn. "We're here, and those bloodthirsty Indians are outside. And somehow I have a feeling that it will all come out right, and—and if it doesn't, we have done our best."

"You're right, Kit," declared Belmont soberly, as he laid his hand on the girl's shoulder. "You're a brave girl and we will get through all right."

"Of course we will," the explorer assured them. "While there is life there is not only hope but no need to give a thought to death. And we're a mighty live crowd yet."

"I'm off to get that thermos bottle," said Belmont. "It will be getting dark soon. Thank heavens I still have that electric torch in my pocket."

"I'm going along, too," declared Kathryn. "We might as well make it unanimous," laughed Thornton.

Only waiting long enough to fasten the idol's arm in place, the party descended to the underground passage and hurried along the tunnel and up the stairs to the other building.

As they reached the vantage point in the broken cornice, the sound of low voices came from below. Very cautiously they peered down. Gathered about the jaguar skin, and talking excitedly, were more than a dozen Indians.

Obviously the savages were tremendously excited and wrought up. They were gesticulating, talking earnestly, and were constantly stopping to examine the skin as though they had never seen a jaguar before.

"I can't make it out," whispered Thornton. "They're worked up—mad as hornets, over something. And they act almost as if they were afraid of that hide."

They're not like any Indians I've ever seen, either. Their decorations are different and they're lighter colored. In fact, I'm not sure that they are Indians. Some of them have brown hair and beards."

"You're right, and they're strapping big rascals, too," muttered Belmont, "twice as husky as any Indians I've seen in this country."

"Me tellum that feller plenty peai," grunted Joseph. "Him feller peai, all same gold mans."

"Say, it's a bully chance to scare that bunch out of their wits," exclaimed the engineer. "I can fire a charge of shot into them, and they'll think all the ghosts in the place are after them."

"And bring this whole place crashing down," said the explorer drily. "You seem to have forgotten what happened when you shot the jaguar."

"What will we do then?" demanded the other. "Let them keep us shut up until we starve to death?"

"If they're a party that came here to make offerings they'll soon leave and will take back wonderful tales of the strangers who vanished in the temple and were under the protection of their god," declared Thornton. "And—Gad, I believe I'm beginning to see daylight. That jaguar you shot was a sacred beast, I'll wager. Probably half domesticated and lived in this building which is sacred. The idol has a jaguar's head, you know. And jaguars appear everywhere in the carvings. No wonder they're mad. That's why they went for us."

"Shouldn't wonder if you're right," growled Belmont. "But why the deuce did they wait so long before going for us; and where did they keep themselves?" "Hmm, my theory is that they have only just arrived," replied Thornton. "Probably the lone Indian you saw was a scout or an attendant of the idols, and didn't dare attack us, until his friends arrived."

"Well, there's no use hanging about here," declared the engineer. "It's getting dark. Let's go back to the temple and eat."

Retracing their steps to the temple, they squatted beside the great golden idol and dined on the fruits and game so providentially left by the worshippers of the ancient deity.

"If I only had a rifle, instead of a shotgun, I could stand off the whole bunch," remarked Belmont. "But bird shot is no good, and I've only four shells left."

"We don't want to kill any of them if we can avoid it," declared Thornton. "As it is now, we may be able to get away without being followed. I imagine they'd be satisfied if we cleared out. But if you killed one of them we'd be doomed."

"And really, they haven't done anything to warrant their being shot," said Kathryn. "Perhaps they mistook us for enemies and would be friendly if we could only make them understand."

Belmont laughed. "You're a real woman," he declared. "Willing to forgive, and tender-hearted. But it seems to me they did their level best to kill us—back at the camp."

For a time they continued to discuss and devise various plans for escaping from their predicament, but without result, and finally they prepared to sleep. Despite their plight, all slept well and when they awoke the sun was shining through the high window and flashing with dazzling brilliancy on the gold idol. The remains of the evening meal provided a meagre breakfast, and half the water in the thermos bottle remained, when

they had finished their all too simple morning meal.

As there was nothing else to occupy their time, they decided to investigate the subterranean chambers, and as they descended, Thornton sent Joseph to the other building to see if their enemies were still there.

Kathryn's delight at the chests of gold moons and the piles of ingots, and her wonder at the massive gold machinery, was enough to satisfy even Belmont.

Presently Joseph returned and reported that the Indians had left the building, that the jaguar skin had disappeared, and that, by climbing to the wall-top, he had seen the savages gathered in the street before the temple as if waiting for the door to open.

"Like a crowd waiting for a show to begin," commented Belmont. "Wonder if they think we'll open up and give them a regular song and dance. Perhaps they're going to offer the jaguar's hide as the price of admission."

The explorer was thinking deeply. "I don't know," he said slowly at last, "but what it might be a wise plan to open the doors. If they came in and saw no signs of us, it might fill them with such superstitious terror that they would clear out. The only trouble is, we can't open the door without going up in the temple ourselves."

"Not much, do we let them in," declared Belmont positively, "and have them pulling down the idol's arm, and swarming down here and catching us like rats in a trap."

"I don't believe they know about the arm," said Thornton. "If they adore the god, as we know they do, they would never dare to commit sacrilege by touching him. I wonder if there isn't some means of operating the mechanism from down here. It seems probable to me that the old priests may have provided such an arrangement."

"We might just as well find out," said Belmont, and the two made their way towards the ponderous machinery with Kathryn beside them.

For a time they could find nothing that appeared to be a lever or handle for operating the mechanism from below. As they studied the chains and toggles, the girl wandered about and entered the room containing the chests of gold ornaments. As she passed one of these her foot tripped on some object in the dark shadows, she plunged forward and uttered a startled cry.

Instantly the two men came racing towards her. "What's wrong?" cried Thornton who was the first to reach the spot.

"Nothing serious," she assured him, picking herself up. "I tripped over something and fell. I was startled, but I'm not hurt."

"Thank heaven," exclaimed Belmont, and then, as he glanced down, "Hello, what's this?"

Gleaming dully in the shadows was a heavy metal bar, and, as the engineer tried to lift it, he gave a surprised exclamation. The bar was fastened to the stone.

"It's a handle or a lever," declared Thornton, as they examined it by the light of the electric torch. "Funny place for such a thing. Perhaps it opens some secret door."

"Here goes to find out," said Belmont. "Stand away from the walls. You can't be sure what may happen in this place."

Slowly he heaved upward on the bar. There was a slight rumbling sound, the bar rose to a perpendicular position, but the walls of the room remained as before.

"Didn't do anything," declared the engineer in disappointed tones.

"I'm not so sure of that," said the explorer. "Something certainly moved. Perhaps it operates something outside."

Leaving the room, the three entered the outer passage and glanced curiously about. "Well, I'll be everlastingly hanged!" cried Belmont. "It's the lever we have been looking for."

There was no doubt of it. The entrance to the passage was closed, and faintly from above came the sounds of voices.

"Shh!" warned Thornton. "The door is open and the Indians are in the temple. I'm going up in the idol to have a look."

With the others at his heels, the explorer silently climbed into the giant god and peered out through the opening in the mouth. Standing in the doorway of the temple, and with one or two of the more courageous with in the vast chamber, were the savages; half-frightened, half-wondering expressions on their faces, and staring intently at the idol.

Presently one of their number, whose ornaments and head dress marked him as a chief or medicine-man, prostrated himself before the god, and instantly the others did likewise. Then he arose and very cautiously approached the idol. As he saw that the offerings of fruit and game had vanished, his eyes fairly bulged, and his jaw sagged in incredible wonder. Then, recovering himself, he commenced to gesticulate and to speak in awed tones. At his words every member of the band turned and with the medicine-man, dashed from the temple. Thornton descended and in a few words related what had taken place. "They were frightened half to death," he chuckled. "It's the first time in their lives that the god ever ate the food they gave him."

"Bully, then we can clear out of here," cried Belmont.

The other shook his head. "Wait a bit," he counseled. "They may still be near. We must be sure they have gone for good and all. There is no sense in walking right into their clutches."

"That's so," agreed Belmont. "Hello, it sounds as if they had come back. Didn't I hear their voices again? I'll have a look this time."

As the engineer peered from the idols mouth he could scarcely suppress a cry of delight and surprise. The savages had returned and, leading the others, two men were carrying a huge basket of fruit, a pile of cassava cakes and a haunch of meat. Bowing and chanting, they placed these offerings reverently on the throne, and backed away through the doorway. Belmont hastily rejoined his companions.

"Hurrah, we're in luck!" he announced. "They've left a regular *table-d'hôte* meal for old gold-bug. They think he's just getting up a good appetite. We can shut the door, go up, get the grub, and whenever we need food all we'll have to do is to open the door and they'll bring in another meal. Talk about service!"

"Hold on!" cried Thornton, as the engineer turned toward the room containing the lever. "Don't open the door until I make certain none of those fellows are in the temple. We can't see behind the idol, but we'll have to risk that. If one or two should get trapped I think we can handle them."

But there was no sign of an enemy in the vast hall,

and the explorer gave the word for Belmont to depress the lever. Silently the door of the temple closed. With gun and pistol ready, the two ascended the short flight of stairs with Kathryn and Joseph following. The place was empty, and a few moments later, all were squatted about, eating greedily the welcome food left for the golden god.

"I wish to goodness they'd leave a few jars of water," said Belmont. "But perhaps old El Dorado is not supposed to have a thirst."

"I wish I could speak their dialect," mused Thornton. "In that case I could play oracle, and suggest that they include liquid refreshments with their offerings, and then betake themselves to their own homes."

"By Jove, that's a darned good scheme!" cried Belmont enthusiastically. "I'll bet, if you spoke from that idol's mouth, you'd have them ready to do anything. Just imagine their thoughts when their old god began to eat and then to talk for the first time in centuries! They'd be just about paralyzed."

"Unfortunately, I don't know a word of their language," the explorer reminded him. "While they were conversing I listened, but I could not understand a word."

"But you speak Akawofa," said Kathryn. "They might understand that. Ted has some Akawoia boys working for him, and he says their language is understood by every Guiana Indian."

"Not quite all," Thornton corrected her. "Akawoia is a sort of *lingua franca* of the bush, it is true, owing to the fact that the Akawoias are traders and go nearly everywhere among the other tribes. It is possible that these men may understand some of the dialect, but I doubt it. I've studied them carefully, and I feel sure they are distinct from all other natives of Guiana. Very likely they may be descendants of the pre-Incas who, tradition says, built this city. Their ornaments and crowns are distinctly Peruvian. However, the word for water is either 'toona,' 'te' or some very similar word among practically all the South and Central American Indians. It may be well to try it on these fellows. We must have more water very soon or we'll die of thirst, even with the fruit to help out."

"Go to it, old man," said Belmont. "I'm not a bit interested in your ethnological studies or surmises, but I'll back you up on the lingo. They can't leave us any less liquid than we have now, so there is nothing to lose."

"I don't think it wise to try it now," declared the explorer. "We have enough water for the rest of the day, and we can open the door in the morning. If we do it too often it will soon lose its impressive effect. Besides, there is a possibility that they will have left the vicinity by morning."

"Very well, you know best," agreed Belmont. "I'm going to have another look down below. There may be a back entrance to this place."

"That is a possibility," exclaimed Thornton. "It hadn't occurred to me."

The closest search, however, failed to reveal another entrance or any lever or mechanism which might operate a secret door. There was nothing new to be investigated, and after a visit to the other building, whence no sign of the Indians could be seen, the four gathered in the temple and passed the long hours in talking and telling stories. Belmont was sure their enemies had deserted the city, and Thornton agreed that it was not

unlikely, as having left such abundant offerings before their god, there would be no reason for their remaining. But neither of the men felt that it would be wise to risk opening the temple door and exposing themselves before the following day.

"If they are still here then they will bring more offerings," declared the explorer. "And if they do not appear we may be reasonably sure that they have left the city."

"Isn't it strange that they do not suspect we are here and have taken the food?" asked the girl. "They saw us go in here."

"They are superstitious and attribute everything they do not understand to magic," Thornton replied. "No doubt they think their god destroyed us and closed the door to prevent them from witnessing our end. When the door opened and they found the temple empty, they would feel convinced of it, for of course they have no suspicion of the underground chambers and secret entrance."

The time dragged slowly, but the light faded at last and the four dined well on the haunch of venison and the remaining fruits. All, however, were suffering from thirst. The sugary fruit did not quench their thirst in the least, and they were conserving every drop of water. Both men merely pretended to drink, in order that the girl might not suffer, and Joseph, realizing the state of affairs, insisted he was not thirsty.

Unless Thornton's ruse worked and the savages brought water the next morning, or unless they managed to escape, all knew that their situation would be desperate indeed. Their only hope, then, would lie in Joseph's suggestion, that he might slip out unseen after dark, and secure water from the stream and return with it undetected. Thornton, however, declared that, if their enemies were still near, there was every likelihood that they would maintain a constant vigil before the temple for fear their god might desire something when no one was on hand to provide for him. But he agreed that if it was humanly possible for anyone to secure water by such means, the Arekuna was the one to succeed. So, once more, they slept within the temple, undisturbed except for parched throats and evil dreams.

As soon as it was broad daylight, the four went below, the door was opened, and Thornton took his place in the idol, prepared to put his scheme into practice if the Indians appeared. At last the subdued voices reached his ears and the chief or peaman, whichever he was, entered the temple with the others following close behind him.

As they approached the idol with their daily offerings, Thornton placed his lips to the orifice in the god's throat, and in heavy guttural tones, spoke the one word: "Toona". The effect upon the Indians was astounding. For the fraction of a second they stared, trembling, at their god, and then with wild shrieks, they dropped their burdens and dashed headlong from the temple.

"Confound it," cried the explorer, as he descended to the others. "Why was I such an ass not to have known they'd be frightened half to death? Now we're worse off than before. They won't come back to bring food."

"Perhaps they may, when they have recovered from their first fright," said Kathryn hopefully.

"Or better yet, they may be so blamed scared that they'll clear out of the city and valley," said Belmont. "No use blaming yourself, Ned. We'll leave the door open for a while and keep watch. If they do come back

with water we'll be all right, and if they don't show up we can feel pretty sure they have gone."

This was a good plan, and Belmont climbed into the idol, while Thornton and Kathryn, with nothing else to do, wandered about studying the chests filled with gold moons. Thinking there might be other articles under these, the explorer began throwing out the golden crescents. For a time the girl helped, and then, finding the work monotonous, she strolled down the passage. As she came to the spot where the smaller tunnel branched off to the other building she felt a draught of fresh air, and to her astonishment, saw an opening in the wall close to the floor. She was positive the aperture had not been there before, and she stooped low and peered into it. The draught was strong, and she was on the point of hurrying back to tell the men of her discovery, when a sudden fancy took possession of her. "I'll just have a look first, and then surprise them" she thought to herself. "I believe I can squeeze through that hole and find out what is on the other side." Assuring herself that the electric torch was in her pocket, she thrust her head and shoulders into the opening and found she could wriggle through. The aperture was too narrow to permit her to use the torch, however, and never dreaming of the terrible risk she ran, she forced her slender body along, feeling with her hands for possible steps or a sudden descent. Very soon, the size of the opening increased, she drew out her torch, flashed it about, and found herself in a good sized room. Piled upon the floor and about the walls were countless jars, plates, bowls, vases and urns. Some were of richly decorated pottery, but the majority were of dull-yellow gold. She gasped as she realized the riches that surrounded her, and laughed with glee at thoughts of how surprised the men would be at her discovery. Then she noticed an arched, door-like opening in the farther wall, and anxious to see what wonders might lie beyond, she hurried to it. Entering the low passage, through which cool air drew strongly, she passed along, peering to right and left, searching for possible openings or chambers. Suddenly she halted, listening with bated breath. From ahead came a strange sound, a musical, gurgling noise; the sound of running water.

For a dozen paces she raced along the passage, until her flashing light glinted upon a tiny stream bubbling from a crevice and tumbling in a miniature cascade to a basin-like hollow of the rock. With a little cry she dropped to her knees and drank deeply of the cold, crystal-clear liquid. No longer need she and the others fear thirst. She had indeed made a discovery, and elated, she sprang up and hurried back to carry the good news to her friends. As she reached the first chamber, and again saw the scattered vessels, another idea flashed through her mind. She would not return empty-handed, but would bring water with her. Glancing about, she seized a pitcher and hurried back to the spring.

Filling the receptacle to the brim, she again started back, humming gaily, filled with happiness at her discovery. Suddenly she halted, a frightened look in her eyes, her ears straining. From ahead had come a faint rumble, a dull grating sound. Filled with vague terror, her hands shaking so that the water slopped and spilled, she peered into the darkness, shaking in every limb. But once more all was silence. With a little laugh at her own nervousness, and summoning her courage, she

stepped forward once more, flashing the light before her. A cry of gripping fear was wrung from her lips. The passageway ended in a solid wall. Shaking, terrified, she dropped her burden and searched the walls, here, there, everywhere. But not a crevice that hinted of an opening was visible.

Dazed, despairing, Kathryn leaned weakly against the wall. She was trapped, shut off, alone in the dark underground passage that led, no one knew where. It was enough to stun anyone, much more a girl, and now that it was too late, she realized how foolhardy and reckless she had been. Tears filled her eyes, she felt sick and faint as she thought of the awful lingering death awaiting her—death by starvation in the blackness. Then her thoughts turned to the others. What would Belmont and Thornton think when they missed her, when they found that she had mysteriously vanished? They would go almost mad, she knew, especially Belmont, for in his words, his glances, his eyes, she had read his feelings. Now, alone, imprisoned here in the tunnel, she realized fully for the first time that he was everything to her, that she loved him with her whole heart and soul. But that knowledge only made her plight the more terrible, only tortured her the more. She could picture him, rushing madly through the passages, shouting her name, calling aloud, and only the dull echoes answering. They would never think of the tiny opening in the passage; they were unaware of its existence. With that thought came another. Why had they not discovered it before? What had caused it to appear, and why had the opening through which she had come closed? With a tremendous effort, she forced herself to think and reason calmly. Then it dawned upon her. Never before had she or the men entered the passage way while the door of the temple had been open. Always, hitherto, the temple's portal had been closed, while they had been in the subterranean chambers. That must be the answer. The narrow aperture through which she had squeezed herself must open in unison with the temple-door and must close as the door closed. Now she understood. The Indians had returned, they had left their offerings; Belmont had closed the temple door, and in so doing had imprisoned her within the tunnel. Unconsciously, unwittingly, he had locked his loved one in the dismal hole. With these thoughts, with the sudden gleam of realization, her heart beat with renewed hope, and the awful fear within her was lifted. Sooner or later they would open the temple door again. She had only to wait and the wall before her would swing back and she would be free. But how long would it be? If the men had received food they would have no reason to open the door for hours, perhaps not until the following day. Long before then, she knew, she would be unconscious, overcome by the strain, and the chance to escape would pass without her knowledge of it.

She must keep up, must be on the alert, must not give in. She had water, she was not hungry—not terribly hungry—but her nerves were shaken, she was weak from the shock of her predicament, and she was deadly afraid that she might faint. She clenched her fists, bit her lips until they bled, exerted all her will power, and repeating "I won't give up, I won't give up," over and over again, she sat there waiting, waiting in the darkness with the golden pitcher of water by her side. Hours seemed to pass, but still, with wide eyes, forcing herself to be calm and patient, battling against her de-

sire to shriek, to go utterly to pieces, she gazed fixedly at the dark space she knew to be the hidden door. Then, so suddenly, so unexpectedly that she *did* scream, a grating noise broke the awful silence. With wildly beating heart she flashed on her light and leaped to her feet. Before her a section of the wall was moving aside. She was saved! Already the opening was a foot wide. Forgetting the jug of water in her mad relief, she squeezed her body through the opening, raced across the chamber, and throwing herself upon the floor, wriggled like a snake through the tiny aperture into the main passage.

As Belmont had peered out through the idol's mouth, not an Indian was in sight, not a sound broke the silence of the temple and the deserted streets. Slowly the minutes slipped by. From the passage below him he could hear the subdued voices of Thornton, Kathryn and Joseph, but finally even these died away as the others moved into the more distant chambers. He was beginning to feel convinced that the Indians had cleared out, bag and baggage, that the voice from their god had frightened them from the city, and that the way was clear for him and his companions to escape in safety. Then, just as he was about to descend and report that the savages had gone, he caught a glimpse of a moving shadow near the door. A feathered head came cautiously into view, and the highly decorated peaiman peered timorously into the temple. For a long minute he gazed, ready to dodge back at the first alarm, and evidently half-expecting to see the huge golden god come to life. Apparently reassured, he reached down, crept slowly into view with a basket of food in his hands, and hesitatingly ascended the steps. His every movement, his expression spoke so eloquently of superstitious terror, that Belmont had an almost irresistible desire to shout, just to witness the fellow turn and run. But he realized that food was all important, and restrained himself, while the Indian, gradually, hesitatingly, drew near. Reaching the topmost step, the peaiman paused. Then, with a sudden dash, he scuttled to the base of the idol, dropped his basket, and turning, dashed away as if the devil were at his heels.

Belmont hurried down and found Thornton still busy with the chests of ornaments.

"They came back," he announced, as he pushed the lever to close the doors. "At least, the old peaiman did. He left food but no water, confound him. Come on, let's eat. Where is Kathryn?"

The explorer glanced about. "Why, she was here a moment ago," he declared.

"Me tellum she go walk that side," asserted Joseph, waving his hand in the direction of the main passage.

"Hello! Oh, Kitty!" shouted Belmont. But there was no reply. "That's strange," he exclaimed, hurrying into the passage.

"Perhaps she went through the tunnel," suggested Thornton.

"Sure, that must be where she is," agreed the engineer. "I'll run along and find her. I expect she wanted to see if any Indians were in sight."

But when he reached the other building and found no trace of the girl, a terrible dread swept over him. He could think of but one explanation for her disappearance. Shaking with fear of what he might see, convinced that Kathryn must have fallen to the pavement below, Belmont forced himself to the opening in the cornice and looked down. A great sigh of relief

escaped his lips. She was not there, thank heaven. But this was scant comfort. She had vanished, mysteriously disappeared. Half crazed, Belmont dashed back, shouting her name, searching wildly where he knew it would be useless to search, until he reached the others.

"Good God!" he cried. "She's not there. She's nowhere in the passage. Nowhere."

"What?" exclaimed Thornton, "Not there? Why, Frank, she must be. There's no other place for her to go. She *must* be here somewhere!"

Too stunned to speak, utterly dazed at the girl's disappearance, the two white men stood, staring at each other, motionless and silent. It was terrible, incredible, utterly beyond reason to think that the girl could have vanished, leaving no trace, here in the narrow passage and the tiny rooms where there was not a corner nor a spot where she could be hidden, where every inch of the floors and walls was in plain sight.

Joseph's voice broke the silence of the despairing, stunned men. "Me tellum this place plenty peai," he croaked.

"Shut up, you idiot!" commanded Thornton. "It must be explicable," he continued. "Nothing in this world is supernatural. We must keep our heads and reason this out."

Belmont gave vent to a hoarse, almost maniacal laugh. "Supernatural or not, she's gone," he cried. "And yet you stand there talking about keeping our heads! God, how I loved her!"

"Here, here," said Thornton, soothingly. "Don't give up in that way, Frank. Kathryn is somewhere near. She hasn't dissolved in air. Brace yourself and we'll reason out the solution."

"Hell, it's beyond reason!" moaned Belmont, throwing himself down on a chest, and resting his head dejectedly in his hands.

Thornton was thinking intensively, a frown on his forehead, his eyes half-closed. "She was here beside me," he muttered as if to himself, "watching me paw over those moons. Then she left. Joseph says she went down this passage. She's not there nor in the tunnel, and she didn't fall from the cornice. She could not have entered the temple while—by Jove! I have it!"

Belmont leaped up at the other's ejaculation of triumph. "What is it?" he demanded. "Quick, man!"

Thornton sprang to the lever. "She vanished when the temple door was open," he cried. "That's the solution!"

Dazed, uncomprehending, Belmont saw the explorer jerk the lever up and spring into the doorway. The next instant, with a hoarse cry, he dashed Thornton aside and raced down the passage, half fearing he had gone mad, that what he had heard was an hallucination. From the distance had come a cry—Kathryn's voice, calling "Frank! Frank!"

The sound of running feet followed, and the girl threw herself into Belmont's outstretched arms.

"Thank God!" he almost sobbed. "I thought—Oh, my darling, you don't know—" he stammered, his voice breaking, as his arms closed tightly about her and she buried her face on his breast.

She lifted her head and with starry eyes and smiling happy face, looked up. "Yes, I do know—dearest," she whispered. "I love—" his lips smothered the rest of the sentence.

"Some fast worker," chuckled Thornton, as he dis-

creetly turned away, while Joseph stood as unmoved, as immobile as though carved from rock.

Very gently, Kathryn released herself from Belmont's embrace. "Oh, how stupid of me!" she exclaimed. "I had water back there and forgot to bring it."

"Water!" cried Thornton incredulously. "Water!" In rapid words she told her story as she snuggled close to the engineer's side.

"You poor, poor little girl!" he whispered, and then told her of what had taken place during her absence, and of how he and Thornton had suffered.

"You can't go in there again," he declared with finality, when she again spoke of returning for the water. "No, not even if I do know the confounded doors will stay open."

"That's silly, dear," replied the girl, "We *must* have water and the opening is too small for you or Ned to get in."

"Joseph might manage it," suggested the explorer. "Let's have a try."

But when they reached the aperture revealed by the opening of the temple door, it was obvious that even the Arekuna could not force his way through.

Thornton examined the place carefully. "There is more than water to be found in there," he announced. "The passage leads to the open air. This draught proves it. But it's hopeless for us. Even if Kathryn can get in, we can't."

"And she is not going to," insisted the engineer. "I'd go mad, thinking of her in there, where she spent such a terrible time."

"It will be different now, darling," argued Kathryn. "You know the doors cannot close, and it's only a few steps. It won't take me a minute, and we can talk back and forth all the time. I'm not the least nervous now. And you know, Frank, we *must* have water."

"Kathryn is right," declared Thornton. "It is perfectly safe with us here. And as she says water is a necessity. Nothing is going to happen to her this time."

Very reluctantly Belmont agreed, and once more the girl wriggled through the opening and disappeared. "Look through and you can see me," she cried gaily. "I'll call out from the other chamber and you can still hear me."

Throwing himself on his stomach, Belmont poked his head into the opening and could see the wavering beam of Kathryn's light as it played upon the floor of the passage beyond. Soon it disappeared, but a moment later, her voice came back faint and thin. He shouted in return, and presently her light flashed on the stones and she thrust a jar of water into the opening. Belmont rose with the golden vessel, and the next moment Kathryn came squirming from the hole.

"There," she exclaimed triumphantly. "You see, dear, it was perfectly all right. How foolish it would have been—"

She was interrupted by an exclamation from Thornton. "Look here!" he cried. "Here's a ring let into the stone. I believe there's a concealed door here."

The others hurried to his side. In the bright light from the torch they could see a heavy gold ring resting in a circular depression cut into the rock wall.

"There must be a door somewhere," declared Belmont. "It isn't likely that the old chaps, who left that stuff here, sealed it up so they couldn't get it. Come on, Ned, grab hold here and let's yank it open."

But although the two men exerted all their strength, and Joseph tugged with them at the ring, it remained as immovable as the solid rock.

"Hang it all!" cried Belmont in exasperation. "Either it's no door, or else it's locked."

Possibly it slides or has to be pushed or lifted," suggested the explorer. But despite every effort to move it in any direction, it remained fast.

"Strange," muttered Thornton. "There is no sign of a lock or bolt, and this ring was most certainly placed here for a purpose. There must be a solution."

As he spoke, he searched carefully over the walls from ceiling to floor. "Ha!" he exclaimed suddenly, "There's another ring on this side. It's so overgrown with lichens that I overlooked it."

Once more the three men strained, pushed, pulled and twisted; but the second ring gave no more indication of yielding than the first.

"I give up," declared Belmont, wiping the perspiration from his face.

"Never give up," Thornton admonished him. "I tell you, Frank, that passage leads out of here, and there must be a door. Let me think. Possibly—yes, I'll wager that's it. When I pull on one ring, you pull on the other. All ready? When I give the word, altogether! One, two, three!"

At the third count the two men pulled. There was a slight creaking, grating sound and the solid wall opened before their amazed eyes.

"Well, I'll be——" began Belmont. "Great Scott, that's clever."

"Yet very simple," added the other. "Just two doors with their edges so dove-tailed and so pivoted that each locks the other and one cannot be opened by itself. And look here," he continued, as he knelt on the floor. "They cannot be opened when the door of the temple is closed and this small aperture is shut. The block of stone that closes this hole also bolts these doors."

"It's the cleverest thing I've seen yet," agreed the engineer. "But I'm a darned sight more interested in getting out of here than in examining their burglar-proof locks."

"There's plenty of time," Thornton reminded him. "We'll go back to the temple and eat. No use going hungry, and I'll wager that Kathryn is nearly famished."

"Great Scott, yes!" ejaculated Belmont. "Poor girl, you must think me a beastly selfish chap. I'd forgotten all about grub. I ought to be kicked."

Closing the doors, and with Joseph carrying the jar of water, they hurried back along the passage. Thornton climbed into the idol and made certain no enemies were in sight; Belmont swung the lever, and entering the temple, they prepared to dine. The basket of food was still upon the floor where the peaman had dropped it, and Thornton declared this was a promising sign and that he believed the Indians had at last left the city.

"If they were near they assuredly would have come here when the door was open for such a long time," he explained. "And if they had been here, and had seen the food still on the floor and untouched, they would have reasoned that their god was displeased and would have placed the basket on the throne."

"Maybe," muttered the engineer, "but I'm not taking any chances with Kitty. We'll explore the new passage and see where it comes out. If it leads to the air at any distance from the temple we can lure the Indians

here by opening the door, and then run down there and make our escape while they're kow-towing to their old idol."

Thornton nodded his approval. "True," he said, "but we must be very careful about exploring that passage. It is not at all impossible that the Indians, or whoever they are, know of the other exit and are guarding it."

Feeling greatly refreshed by their meal, the four rose and made their way to the newly-discovered tunnel. Once more Belmont and Thornton pulled in unison on the metal rings. Then they looked at each other in amazement. The doors remained immovable!

"Hang it!" cried Belmont. "Something's wrong. Why in thunder didn't we leave the doors open?"

Thornton burst into hearty laughter. "We are idiots!" he exclaimed. "We forgot to open the temple door."

Hurrying back, he swung the lever and the doors swung as readily as before. As they passed through the room containing the golden vessels, Belmont's eyes bulged at the treasure scattered about, while Thornton uttered ejaculations of wonder and delight at the archeological value of the ancient utensils. Crossing the room, they entered the tunnel where Kathryn had been trapped, and hurried towards the sound of the falling water. They had almost reached the little cascade when, from their rear, came a faint sound—a rumbling jar.

Instantly all halted in their tracks, listening with tense ears. The next moment Thornton turned and dashed back along the passage. Presently he returned. "It was just as I feared," he announced. "We are cut off from returning. The doors are closed and locked."

"What?" shouted Belmont. "You don't mean it! How the devil——"

"Yes," replied the other. "Either the arm of the idol or the lever slipped, or else the Indians have discovered the secret of the god's arm. The way back is sealed."

For a time the three stood silent. Then Belmont drew Kathryn to him. "I guess it doesn't make much difference, after all," he said, striving to speak confidentially, "as long as this passage leads to the open air. Besides, if the Indians shut the door of the temple, they'll find themselves locked in and will have to open it to get out; then we can get back."

"Let us hope it was an accident," said the explorer. "If those fellows have learned the secret of the idol, we'll be worse off than with the place irretrievably shut. If they don't get into the passage and follow us, I'll be satisfied."

"Confound the luck!" cried Belmont. "We left those doors open. They're sure to find them."

"I don't think there is any danger," the other assured them. "Even if the Indians descended to the passage—assuming that they operated the levers, which I doubt, and found the outer doors open, the inner entrance to this place is shut and can only be opened from the idol or the secret lever. No, I feel we are safe enough from them. But we're compelled to get out now. We have no food."

"Don't let's worry yet," pleaded the girl. "We really don't know anything about what is behind us or before us. We are just worrying ourselves over theories and possibilities."

"You're right, darling," declared Belmont, bestowing a caress. "Luck has been with us so far, and we'll trust to it a bit longer. Come on. We'll find where this sub-way leads."

For an interminable distance they walked along the

passage. The walls were slimy and wet, the floor became uneven, and the tunnel twisted and turned. At last, far ahead, they saw a glimmer of light.

"We're nearing the end," announced the explorer. "Now we must be cautious. We don't know where we are, nor whether or not the exit is guarded."

Silently they approached the opening, until within a few yards of it, when they halted. The aperture was small, irregular and partly choked with masses of loose rock and boulders, and was screened by vines, brush and vegetation.

"Our best plan will be to let Joseph sneak out and look around," declared Thornton. "He can determine where we are, and if anyone is near, and we can then plan accordingly."

A moment later the Arekuna slipped like a lizard among the rocks and was lost to view. Patiently and silently the three waited. But at last the bushes, silhouetted against the light, swayed gently, and on noiseless feet Joseph stepped towards them.

"He says the entrance is close to the river," announced the explorer, as the Arekuna finished speaking in his native dialect. "And no Indians are in sight. Moreover, several canoes are drawn upon the bank a few rods from this entrance. Evidently the Indians came in their craft by way of the stream. The entrance is well hidden among a pile of rocks overgrown with a thicket. I think our best plan is to wait here until dark. Then we will send Joseph out again, and if he finds the way clear, we'll make a dash for the canoes and get away."

"A fine plan, provided the rascals aren't camped alongside their canoes," agreed Belmont. "But at any rate, it's our only chance."

"Joseph says there is no sign of a camp," Thornton replied. "He made his way to the canoes and searched about. I imagine the Indians are camping in the city or close to the temple."

The explorer's plan appeared feasible to all, and with Joseph hidden among the brush at the tunnel's mouth as a guard, the three seated themselves on some fragments of stone, and conversing in low voices, prepared to wait for nightfall.

Every move they were to make was carefully planned, and provided that the savages were not near, there seemed no reason to apprehend discovery.

"There are six canoes," said Thornton. "We will take two of them and tow the other four down stream and set them adrift. Then the Indians cannot follow even if they discover our escape, and by morning we should be miles away. The only problem will be food. I guess we'll have to go hungry until tomorrow. Hello, didn't you bring your gun, Frank?"

"Thunderation, no!" exclaimed Belmont. "I left it back in that room with the gold moons. I am a blithering idiot!"

"Never mind, dear," said Kathryn. "You had only three cartridges anyway. Joseph can always get fish, and perhaps we'll find food in the canoes."

"Too bad," commented the explorer. "But it's no use worrying about it now. I'm afraid I'm not sufficiently expert to shoot game with the automatic, but we'll manage somehow."

Belmont, however, refused to take the matter lightly, and continued to berate himself for his carelessness. But at last, finding it merely depressed the others, and realizing the futility of his regrets, he assumed his ordi-

nary, optimistic, jovial tone and decided to forget it all.

Gradually, as they talked, the entrance to the tunnel grew dim. The outlines of the vines and branches became invisible, and at last the final glimmer of line was gone and the opening was as black as the interior of the passage.

Presently Joseph approached and reported that he had seen no signs of their enemies, and that no fire was visible.

"All right, let's go," said Belmont, as Thornton translated the Arekuna's words.

With Joseph in the lead, and each member of the party touching the one in advance, they crept from the passage into the open air. Although it had appeared quite dark from within the tunnel, yet the night was clear, and the faint glow of starlight made it possible to distinguish nearby objects. Once away from the pile of rocks, it was easy going, and Joseph led the way unerringly. All about them were small trees, forming, as Joseph had said, a dense thicket. Passing through this, they came out on a weed-grown open space with the river flowing swiftly and with a musical gurgle a few rods distant. Against the silvery sheen of the water they could see the dark outlines of the canoes, and for a moment they halted, listening and waiting for any possible sound or sign of their enemies.

"We'll let Joseph go forward and make sure," whispered Thornton. "We must take no risks. There is still a chance that a guard has been placed by the canoes."

Like a shadow the Indian vanished into the night, and patiently the three waited, crouching motionless at the edge of the thicket.

Suddenly, from the direction of the canoes, came a faint, half-smothered sound, and a rattle as of some object striking wood.

Thornton leaped to his feet. "What the——" His words were cut short by a low cry from Kathryn; there was a rustle behind him, and instantly he wheeled about, reaching for his pistol as he did so. But too late. A dark form hurled itself upon him; he was borne struggling to the earth, and was pinned face down by a heavy, panting body. As he had swung about he had glimpsed other savage figures leaping from the thicket upon his companions. They were captives, prisoners of the strange savages, and Thornton groaned as he thought what their fate might be. Madly, furiously he kicked, writhed and tried to turn. But all to no purpose. He was held in a grip of steel, powerless to free himself. Rapidly he was bound, trussed like a fowl, and a strip of bark-cloth was wrapped about his mouth effectually gagging him. Helpless and silenced, he was jerked to his feet. Wildly he gazed about. On every side moved stealthily, shadowy figures, and he caught the sounds of low-toned guttural words. A few feet distant stood Belmont and the girl, bound and gagged like himself, and each held by two of the savages. All this he took in at a glance. The next instant a covering was thrown over his head, and, unable to speak, blindfolded, he was lifted and carried away.

Thornton felt positive that he and his companions were doomed. He wondered that the Indians had not struck them down instead of capturing them, and the only explanation he could think of was that they were to be tortured. He knew that none of the known Guiana tribes practised torturing prisoners like their

North American cousins, but these savages were of no known tribe. Very probably, he thought, the prisoners were to be sacrificed before the golden idol in order to propitiate the god for the desecration of his temple, for the explorer felt convinced that the Indians had at last discovered that it was the white men who had taken the offerings placed at the idol's feet by the worshippers.

In that case, they were doomed to a terrible fate indeed, and Thornton groaned and writhed in agony of mind as he thought of Kathryn and what was before her.

Better by far had they remained in the underground chambers of the temple. But it was now too late for vain regrets. The very worst had befallen them; the end had come. All these thoughts flashed through Thornton's mind as his captors bore him, like a sack of meal, between them. Then he was dumped, none too gently, on the ground. Again he heard voices, a rattle of wood on wood, and once more he was lifted. There was the splash of water, and with a grunt, his bearers dropped him into a canoe. The craft tipped and swayed; there was a rattle of paddles, and then, by the steady swish of water and the motion of the canoe, Thornton knew the craft was under way.

Where were they taking him? Were the others there also? It was impossible for him to know, for he could not see, could not speak, and could not move hand or foot. One thing, however, was certain. He was not being carried to the temple, so the chances were that the others were not. This was a slight relief, but then again, it might indicate an even worse fate if that were possible. In all probability they were being taken to the Indians' village, and death, perhaps torture, would follow. For himself he cared little. He had faced death daily for years, and had been in so many tight places from which he had escaped by a hair's breadth, that he had ceased to worry over the future. In fact he had become more or less of a fatalist, and as he lay there in the rocking, speeding canoe, his thoughts were all of the others, and his one great regret for his own fate was that, if he were killed, he could never report the astounding discoveries he had made.

For hours the canoe sped on. Several times the sounds of rushing water, the erratic, bounding, leaping motions of the craft, and the excited voices of his captors, told Thornton that they were shooting rapids. Sometimes branches swept across the gunwales of the canoe and showered drops of water upon him, and once or twice, he felt the bottom of the dugout grate on rocks, and by the sounds and splashing, he knew the Indians had leaped out and were lifting and hauling their craft into clear water.

At last, by the light that filtered through the covering over his eyes, he knew that day had dawned. He was now gasping for breath, his throat was dry and parched, the thongs cut into his wrists, arms and ankles, and every bone and muscle ached and pained as if he had been pounded. Would they never stop? Would his captors never remove the stifling gag and give him a drop of blessed water? He began to wish they had made away with him in the first place, for his sufferings were almost beyond human endurance. Then he felt the canoe being run ashore. Once more he was lifted and carried for a short distance; he was placed on the ground, and without warning, the covering was

jerked from his head and the gag taken from his mouth.

Thornton gulped, drew a long breath of blessed relief, blinked his eyes and stared about him. He was surrounded by impenetrable jungle, and near him squatted two painted savages, wooden-faced, expressionless. Not another soul was visible.

What had become of his companions? Had they been left behind to provide human sacrifices, while he alone had been carried away? He opened his lips to speak, in the faint hope that the savages might understand some Indian dialect and might reply.

But instantly one of the fellows made a warning gesture, and held up the gag suggestively, and the words died on Thornton's lips. Now one of the men approached with a calabash of water and held it to the explorer's mouth. The other placed cassava bread, a roasted plantain and a smoked leg of wild turkey before him, and loosened the fibre bonds about his arms and wrists. At any rate, the savages had no intention of letting him die of thirst or starvation, and Thornton ate ravenously and, as he did so, racked his brains for some scheme to escape. But he soon gave it up. Any attempt to free himself while the two savages were on hand would be utterly hopeless. They were tremendously muscled—even for Guiana aborigines, and were totally unlike the short, docile people with whom he was familiar. Both were fully six feet in height, powerfully built and perfectly proportioned, and the ease with which he had been seized, bound and carried off bodily, was ample proof of their gigantic strength. Moreover, each carried a blowgun and poisoned darts, as well as a powerful bow, and each had a heavy, hard-wood, ugly-looking club attached to his wrist by a loop of cotton. Even if he drew his pistol—and to his surprise he remembered they had not searched him and had not taken possession of his weapon—the savages could bash out his brains or destroy him with a dart or arrow before he could shoot. And as Thornton saw the blowguns and the deadly wurali-poison-tipped darts he became more than ever puzzled. Why, he wondered, had the fellows not used these in their first attack on the camp?

They could have killed him and his companions without a sound, without the least warning, and without betraying their own presence, and yet they had used bows and arrows instead. The only reasonable explanation he could think of was that the Indians had wished to take the white men prisoners, that they had planned sacrifice or torture from the start. But the savages' behavior had been most mysterious throughout. Even their identity was a puzzle, a mystery. It was hopeless to try to solve it all or to formulate a plan to gain his freedom, and at last Thornton gave up, resigning himself to whatever fate might be in store, but determined to seize the first opportunity to make a dash for liberty.

No sooner had he finished eating and had taken his fill of water, than he was again bound and the covering drawn over his head. But this time, to his intense relief, the gag was not used, although his captors made it very plain, by means of signs and unintelligible words, that any outcry or sound would instantly bring the terrible gag into use.

Once more he was carried to the canoe, the craft was shoved from the shore, and steadily, for hour after hour, they swept on down the stream. Sometimes the sun beat down upon them with terrific heat. At other times they were in semi-darkness, and the dank, cool air told

of passing through dense forests. Again and again, they ran rapids; and three times Thornton was lifted from the dugout and was carried along rough paths where, by the distant roaring of water, he knew they were portaging around cataracts. Several times, too, the canoe stopped and water was given him, and towards midday the canoe was run up on a beach and in the midst of the jungle Thornton was fed, exactly as he had been served in the morning. Again, late in the afternoon, this was repeated; but to Thornton's surprise, the savages showed no intentions of making camp. Instead, they again placed him in the canoe and through the darkness continued on their way. He wondered if they would ever rest, if they would ever sleep, and he wondered also where in the world they could be taking him. At the rate they had been travelling he knew they must have covered fully one hundred and fifty miles. They had been going downstream continually, and that would inevitably bring them close to the known districts and semi-civilized tribes. To be sure, they had started off on an unknown, and uncharted river; but he had no means of knowing if they were still on the same stream. In fact, he decided, the chances were that they were not. They might have swung into a larger river, or for all he could tell, they might have crossed from one stream to another, when they carried him blindfolded over portages. But even so, the matter was incomprehensible. There were not, he knew, any unexplored large rivers within the distance of the coast, where he felt sure they must be, unless the stream they had followed wound and twisted endlessly and their progress had not been directly towards the coast. This seemed the only plausible theory. Then another thought occurred to him. Neither he nor Belmont had the least idea where the lost city was situated. For all they knew it might not be in British Guiana. Very possibly it was beyond the boundary, in Surinam, or even in Brazil. That would account for many puzzling things—the unrecognizable savages, the strange dialect they spoke, the unknown river. But then again, Kathryn had flown a long time before sighting the city after leaving Dutch Guiana, and she had flown in a more or less direct line across country. It was all guess work, all supposition, and with his mind on such matters, tired, and lulled by the sound of rippling water, Thornton fell asleep.

He awoke, cramped, shivering with the chill night air, and realized that the canoe was motionless. A moment later he was lifted and carried ashore, placed in a hammock and his bonds loosened. His first thought was that he had reached the journey's end, that he was at the Indians' village. But as he gratefully stretched his cramped limbs and looked about he knew this was not the case. The same two savages squatted near, huddling over a small fire, and there was no sign of other human beings or of huts. The hammock, after the hard, wet bottom of the canoe, was a luxury, and with a wonderful sensation of comfort he once more slumbered.

It was broad daylight when he opened his eyes. Water and food were given him and then, although once more he was blindfolded and the head covering was tied about his neck, his hands were left free. But he was far more comfortable than hitherto, even if he could not see. He could sit up, could shift his position from time to time, and he was no longer cramped and numb. He even considered locating the position of his captors by sound, drawing his automatic and shooting at them. But he quickly abandoned the idea. In the first place,

one sat at the bow and the other at the stern of the dugout, and he was between them. Even if he shot one the other could kill him. And in the second place his soul revolted at thought of killing the fellows. They had treated him decently so far, and, for all he knew, Belmont, Kathryn and Joseph might have been shown the same consideration. And after all, as he thought it all over, the savages had behaved pretty well. They had resented the white men's desecration of their temple and their god, but that was only natural and he could not blame them. And, had the Indians so desired, they easily could have killed every member of the party without endangering themselves. No, until his captors gave him more cause, he would not attempt their lives, even to escape.

All day they continued to travel. Stops were made and Thornton was given food and drink as before, and again night came and found them still rushing down the apparently endless river.

Once more Thornton slept, cradled in the bottom of the dugout, and he did not awaken until he was lifted out by his captors. But this time, he was neither dumped upon the ground nor placed in a hammock. Instead, he was rather carefully and gently seated in another canoe, the covering was jerked quickly from his head, and he glanced curiously about.

For a time he could distinguish nothing. But as his eyes became accustomed to the darkness, he saw three figures seated before him in the large dugout. Oddly enough, they were motionless, were not paddling. He peered intently at them, gasped, rubbed his eyes, utterly unable to believe his senses. Was he dreaming? Was he suffering from some strange delusion? Surely it could not be, and yet it must be, it must—yes, there was no question. The figures before him were not his captors, were not savages—they wore clothes. It was incredible, utterly amazing. Then he knew. The dark, huddled forms were those of Kathryn, Belmont and Joseph!

From his lips came a sharp, joyous, surprised cry. Instantly the nearest figure swung about. "Ned!" came in amazed tones from the darkness. "I'll be—" "Wa-la!" interrupted the guttural voice of the Arekuna. "Me tellum plenty peal!"

"Oh, I can't believe it!" came Kathryn's voice. "It's too wonderful! Where are we? What has happened?" Thornton laughed almost hysterically. "I haven't the remotest idea," he fairly shouted. "We're adrift, alone, Heaven knows where. But unharmed, free. Hello, there's the shore!"

Scarcely had he spoken when the canoe grated against the bank. Thornton grasped the branch of an overhanging tree, and a moment later, the four, so mysteriously and strangely reunited, were on dry land, talking, laughing and, as Belmont put it, "acting like a bunch of kids."

Behind them towered the black shadowy forest; before them lay the dark river. They had no idea where they were, they were without shelter, food or fire, but they were heedless of their plight. It was enough that they were again together, safe, alive and unhurt. Seated there, upon the muddy bank, between the jungle and the river, they waited for the coming day and told one another what had occurred to each one since they had been surprised and captured. Every story was much the same, for all had undergone almost identical experiences. Not one of the four had seen any of the

others until they had found themselves here, together in the big canoe, and all laughed as they described how each had mistaken the others for Indians until Thornton had spoken.

"But why did they do it?" queried the girl. "Why did they take us prisoners and carry us all this distance and then let us go? And where are we now?"

"I've spent most of my time trying to puzzle out an answer to those very questions," replied the explorer. "Only one theory seems plausible. Their one idea must have been to get us away from the city and their idol. They had no intention or desire to injure us, probably because they thought us pei or in favor with the god, for they had blow-guns and poisoned darts and could have killed us at any time if they had wished. And they had no intention of letting us ever find our way back, and probably brought each of us by a separate route. I guess they've succeeded pretty well, too. As nearly as I can make up, they have been doubling on their course, going down one stream and then another, crossing overland at times, padding through creeks, and threading a maze of waterways. We may be in British or Dutch Guiana, even in Brazil, for all I know, and anywhere from fifty to five hundred miles from civilization. Having reached this spot they thought it far enough for safety and slipped away. It was a clever scheme. And by the way, Frank, it proves I was right when I said the Guiana Indians were peaceful, except of course the cannibals."

"Maybe," conceded the engineer. "But how about the arrows they fired at us? They nicked you and Joseph. Not a very peaceable act, I'd say."

Thornton seemed a bit embarrassed. "Hmm, that was before they stopped to think what they were doing," he replied. "And if they had really desired to kill us then, why didn't they use their poisoned darts?"

"Don't ask me," said Belmont. "But a man might as well be killed outright as to be frightened to death. I never expected to see you again. God, how I suffered thinking of you, sweetheart," he added, drawing Kathryn close.

"No more than I did over you, dear," whispered the girl. "But I felt sure it would all come out well in the end."

"Thank the good Lord that it did," declared Belmont fervently. Then, after a moment: "But they have prevented us from ever getting back after that gold. Manoa is as much lost as it ever was."

Thornton chuckled. "You *are* a mercenary rascal, Frank," he said. "But what's the matter with going in a plane? Kathryn found the city accidentally, and we ought to be able to find it intentionally."

"Great Scott, that's so!" cried Belmont. "I must be losing what little brains I have left. But somehow, now that we're here, I can hardly believe it was all real until I feel the handful of gold moons and the half-dozen nuggets in my pockets. I'm glad the rascals didn't rob me of these."

Joseph patted his leather pouch significantly. "Me tellum me catchum this time," he grinned. "Him fellers no likeum. Him sabby peai, no touchum." As he spoke the Arekuna reached in his pouch and drew out a golden ingot.

"Foxy boy!" cried Belmont. "You're fixed for life." Then, pressing Kathryn to him, he added, "And so am

I. I found a greater treasure than all the gold in Manoa."

"It looks as if I'm the only one who didn't make good," laughed Thornton. "But even I didn't come empty-handed. See here, I found this among those gold moons in the chest." Reaching in his pocket, he produced a heavy gold circlet studded with four immense, uncut emeralds.

"Well, I'll be——" commenced Belmont. "Say, old man, that's a small fortune."

"Or a unique wedding present," suggested the other with a grin. "Hello, it's nearly daylight. Look, we can see the opposite shore."

Dawn came rapidly, and as the canoe became visible, Joseph rose and went to it. A moment later he turned. "All same gottum grub!" he announced.

The others hurried to him. In the dugout were paddles, a bow and arrows and several cassava cakes wrapped in palm leaves.

"We won't starve at any rate," announced the explorer. "Mighty thoughtful of them. And if we follow the current we're bound to strike the coast or a settlement."

"Sure," assented the engineer. "But which way is the current? Seems to me there isn't any."

Thornton stood silently gazing at the surface of the water. "The current flows that way—to the west," he announced presently. "If you watch those bits of floating twigs and leaves you can see it. But we'll eat before we start."

When their frugal breakfast was over and they again went to the canoe, Belmont gave an exclamation of surprise. "That's blamed queer," he muttered. "The drift is going the other way now, to the east."

Before Thornton could reply Joseph gave a shout: "Tide he wash!"

"Gad, he's right!" cried the explorer. "We're within reach of tide-water. We are below all the rapids and within one hundred miles of the coast!"

Elated, excited, the four piled into the canoe, and plying paddles with all their strength, the men drove their craft down the creek towards the west.

Dodging sunken logs and snags, crouching low as they swept beneath fallen trees, ploughing through masses of the giant Victoria Regia lily leaves, they sped on. Rapidly the narrow jungle stream widened, and presently a wider creek was seen ahead. Into this they swung, but by now the tide was flowing swiftly against them, and the canoe moved slowly. The creek turned and twisted and gradually it broadened. The jungle gave way to muddy shores covered with mangroves, and as they rounded a sharp bend, the gleam of open water lay before them.

A moment later, and the creek was left astern and they floated on the surface of a broad river. And at the sight which greeted them, a shout rose from all four throats. Across the river, scarcely half a mile distant, was a town! Beside the wooden dock a river steamer was moored; wooden houses shone in the sun; and a tiny locomotive puffed and snorted as it hauled a freight train along the bank.

"Wismar, by all that's wonderful!" yelled Thornton. "And we're in time for the steamer."

Belmont turned with a grin. "Say, Ned," he asked. "Is there a parson there?"

Borneo Devils

By Murray Leinster

Author of "Politics," "The Red Dust," "The Mad Planet," etc.

T HIS well-known author has certainly distinguished himself in this story depicting the aboriginal life of Borneo and the rôle played there by the western world. We feel that we compliment it no more than it deserves when we say that it reminds us of Rudyard Kipling's stories of India.

Illustrated by MOREY

UPON a certain morning in British North Borneo a certain missionary appeared blandly at his charge in Sadong and prepared to hold services. Three men only showed themselves—no women at all. The missionary asked indignantly for the heifers of his flock, and was told an entirely impossible story. His indignation increased, and he returned and reported the matter to government authorities, saying profoundly that he suspected there had been murders—probably heathen human sacrifices—in the village of Sadong. Because it was plainly impossible that his three converted females had been carried off by winged devils with toothed beaks and scaly bodies, who accepted them as ransom for the village.

Upon another morning in Sarawak, which is also in Borneo, one Abdul Rahman returned to his native village, rich because of having worked for two years in the lignite mine which is the personal property of His Highness, the Raja Brooke. He had fifty Straits dollars, glittering and white, besides many other possessions normally owned only by the *orang putih*—white men—who rule that nation. For two days he basked in public admiration, and then took twenty of his dollars—they were the slightly clipped ones—and visited the parents of Aysah, for whose hand he had contracted two years before. He was to pay that sum for his bride, who would be thirteen years old and almost certainly a virgin. He offered his money and began to discuss the wedding. But the money was returned, however, reluctantly. His bride was not waiting for him. To his indignant questioning, an impossible explanation was offered.

But he had worked for two years for white men. He was not to be deceived by such nonsense. With his *parang* he severed the left arm of his father-in-law-to-be, slashed his theoretic mother-in-law in several places, and was beginning to vent his displeasure upon other members of the family, when their screams brought help. He was trussed up and delivered to the nearest white man's jail, six days journey away, where his infuriated account of the dispute was duly noted down. And the white man, who wrote it down, agreed that it was not plausible that his bride had been delivered to devils of the height of a man's forearm, with toothed

beaks and scaly bodies, who flew above the village and screamed unintelligible threats, until a young girl was delivered to them, bound, in the bush.

And upon a certain other day one Hop See, stout, bland and prosperous, dispenser of opium under the terms of the government monopoly in British North Borneo, took a little trip into the interior. He took with him the newest and most prized of all his concubines and six men. He returned alone; haggard, terror-ridden and without his sloe-eyed mistress. And he reported hysterically that devils with toothed beaks and scaly bodies had darted down from the skies, screaming horribly. They slew his men and required from him his concubine, whom he surrendered in shaking horror. And those devils were small, smaller than children, and they cried out with the voices of fiends.

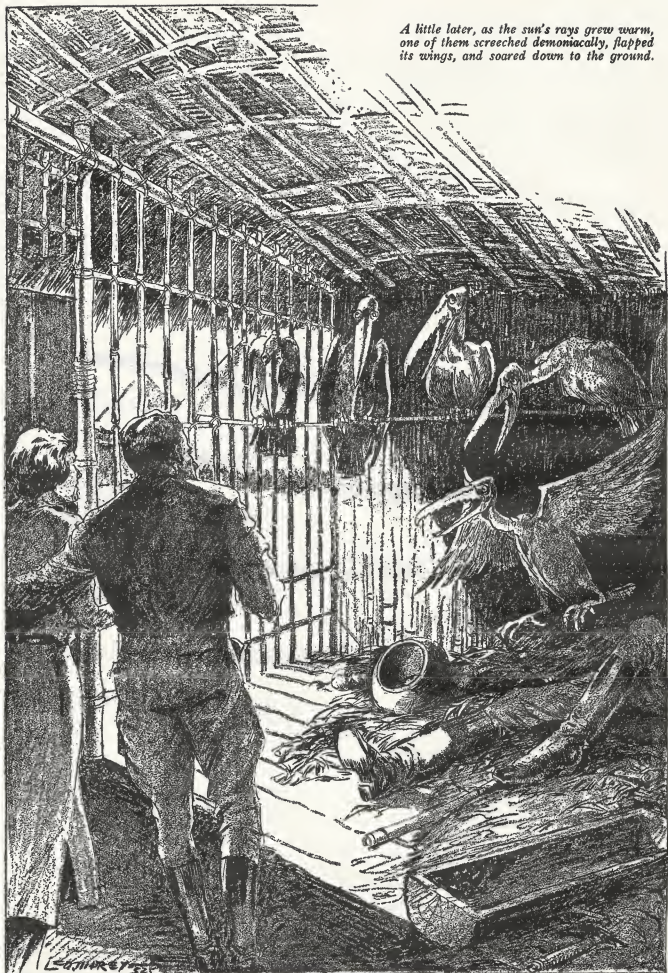
Then other rumors, equally impossible, began to be heard. And since Borneo produces all things from bat-dung to rubies in commercial quantities, and is a place where almost anything is rather more than likely to happen, why, measures were taken, which led to the disappearance of one Captain Houghton of the Sarawak Constabulary from his accustomed haunts. Because all the tales and all the rumors described devils which were essentially the same. And devils, you understand, are officially tolerated in regions, where freedom of religious belief is an established principle. But there are limits, which these special devils had passed. In Sarawak and in British North Borneo devils are governmentally permitted to exist, to dwell, and to have their devotees in any spot they may elect. But they must behave themselves. And so Captain Houghton vanished, to inquire into the matter of tooth-beaked, scaly winged devils who were violating laws and statutes made and provided, to the detriment of the public peace.

* * * * *

CHAPTER I

HORNBILLS squabbled raucously off among the bamboos a little distance away. The sun was a fiery red ball, rolling down toward a cloud-obscured horizon beneath which it would vanish suddenly, and immediately produce night. Palmyra palms slowly

A little later, as the sun's rays grew warm, one of them screeched demoniacally, flapped its wings, and soared down to the ground.



moved long fronds against the lurid background of the sky. Save for the squabbling hornbills, there was silence such as falls upon the jungle only in that short time before sunset when the creatures of the day are seeking their hiding-places, and the creatures of the night are not yet waking.

The white man cleaned his rifle meditatively, sitting on the bamboo platform that supported his tent. He seemed to be utterly alone. There was a clearing here, and there were places where the grass had been trampled down, and there were half a dozen heaps of ashes, as of dead campfires. But the white man cleaning his rifle was the only visible human being.

Something rose with a startled squawk and flapped across the clearing, to vanish among the trees. The white man looked up keenly, his eyes searching the trail that here led into the clear space. He saw what he was looking for. The automatic pistol, that had leaped into his hand at the alarm, went inconspicuously back into place. He dropped his head as if he had seen nothing whatever, but he murmured under his breath.

"They are coming, Ali. They were missed. Go and do as I ordered."

The back of the tent billowed out slightly. There was an almost inaudible rustling of the tall grass. Then silence.

The hornbills squabbled interminably. The sun rolled down nearer and nearer to the cloud-banked edge of the world. A breeze stirred, moving across the roof of the jungle with a long-drawn-out sighing sound. A jungle-thing cried out at the edge of the clearing. The white man, cleaning his rifle, smiled faintly to himself. He paid no attention even when it cried out again, and again.

There was a tiny movement of the undergrowth. The white man looked up sharply. His rifle came up. There was an instant's hesitation, and then a man came into view. He was a brown-skinned man, naked save for a *sarong* about his middle, and a second cloth twisted turban-wise about his head, and with a long wood-knife—a *parang*—in his hand.

He called across the clearing. The white man blinked, and lowered his weapon.

"Why the devil didn't you say so in the first place?" he demanded querulously. "Dash it all, sneaking about like that. . ."

He looked with apparent eagerness along the trail. Now movements in the distance became apparent. Two more brown-skinned men. A dot of white, which would be a white man in duck. More brown men, carrying burdens. Two more dots of white. Then a bulky, swaying, unhandy thing, which was a hammock or something similar, filled with an un-moving burden.

The long line of slowly-moving figures drew nearer and nearer. It seemed almost as if there were a compact between them and the sun, to arrive at the clearing only at the instant of darkness. But the caravan broke it. The white man on the tent-platform saw the first white-clad figure clearly. It was a lean, hard-bitten white man with an immaculate white puggaree on his head, and thick-lensed spectacles glittering in the light of the sky. He carried a rifle slung across his arm as if for instant use. He stared up at the tent and scowled at it, and then began to give orders for the making of camp. The next two white figures looked at the tent apathetically. One of them was quite a young man, but with the drawn look of one who has

not slept for many days. The last was a girl with wide, frightened eyes. Then the hammock came into view. In it was what appeared to be the body of a man clad in duck like the rest, but giving with an utter lack of resilience to the movements of his bearers.

The spectacled man was snarling orders right and left, and the burden-bearers dumped their loads and scattered to take up the task of making camp. *Parangs* rose and fell and flickered in the suddenly dying light from overhead. In minutes four tents arose, with the inevitable rings of spilled kerosene about them for the discouragement of crawling insects. Fires smoked, crackled, and burst into flame. The camp was made. It was all very efficient, and smoothly-running, and natural. But the men moved with a jerky hesitation that showed them under a terrific strain.

There had been no sign of interest in the tent on the bamboo platform, save that the girl turned frightened eyes toward it more than once. The young man with the drawn look stared at it also. Then that first tent's occupant swore softly to himself, loaded his rifle, and went down the ladder. He approached the spectacled leader of the newcomers.

"Er—how do you do?" he said dully.

The spectacled figure scowled.

"What do you want?"

"Why—what the devil?" said Houghton in apparent amazement. "I'm a white man, and in something of a bad fix, and I come to you—"

The spectacled man seemed to fly into a peculiar passion.

"I tell you, Captain Houghton or no Captain Houghton, you shan't interfere with my expedition!" he rasped. "I can take care of myself! I am not after gold or rubies, and the government of Sarawak has nothing to do with me!"

Houghton laughed.

"I see," he said. "You think I'm here to stop you from going into forbidden territory, or something of the sort. But I'm not. I'm in the devil of a bad fix. My men have run off, and—"

The spectacled eyes regarded him with an intense suspicion.

"What happened to you?"

"Why," said the man from the snake-proof tent, mildly, "I've been up here on leave, hunting, and my men ran off four days ago. I've no one to carry my luggage or skins—"

The thin lips of the spectacled man twitched into an unpleasant, ironic smile.

"Very well. We'll let you stay with us. Perhaps you can help us live through the next week!"

He turned his back and moved away, snarling enraged commands at the native bearers, who, at close view, were palpably upon the thin edge of hysteria.

Houghton smiled oddly to himself. He saw the girl staring at him. The young man with the sleepless look seemed glassy-eyed with exhaustion. Houghton went toward them. Small brush shelters were going up in frantic haste. Night was falling with the wonderful swiftness of the tropics. The girl tried to smile.

"You—have the devil-birds been after you too?"

"Devil-birds?" said Houghton.

"Your men ran away," she said wearily. "Didn't the devil-birds get after them?"

Houghton sat down with an air of extreme deliberation.

"I'll be honest," he said ruefully. "I have heard of devil-birds. Wild rumors about them made me choose this section to hunt in. I've heard they carry off native girls, kill men, and are devils that scream and fly. I thought it was possibly a secret society, frightening the natives into fits. But except that four nights ago my bearers woke me up by their howling and ran away in a body in the dark, I've seen absolutely nothing out of the ordinary."

The girl and the young man looked at each other. The man nodded heavily.

"That was it," he said exhaustedly. "The devils frightened them. You'll see, to-night."

His head fell forward on his chest. But then he waked with a start and looked panic-stricken.

"I mustn't sleep," he muttered. "I mustn't sleep. I've got to keep awake . . ."

He dragged himself to his feet and began to walk up and down with the jerky movements of a sleep-walker. The girl looked at him anxiously.

"What is it?" asked Houghton. "Is there really something?"

"They've killed four of our natives," said the exhausted man, heavily, "and Grahame is dying in the hammock there now. They are devils all right. We've seen them!"

Houghton smiled.

"You're joking!"

"N-no," said the girl faintly. "We have seen them. They are horrible things. They have teeth in their beaks, and scales on their bodies, and horrible feathered wings . . ."

Houghton stared at her.

"But—dash it all!" he protested. "That sort of thing . . ."

The girl spoke in an apathetic calm.

"I know," she said drearily. "It's impossible. We know it quite well. But it's so. You've heard that they carry off girls from native villages? They've killed four of our native bearers, just as Frank has said, and Mr. Grahame is dying in the hammock."

Houghton's face was blankly shocked and unbelieving, in the light of a nearby fire.

"You might look at Mr. Grahame," said the girl wearily.

"I—er—I think I will," said Houghton apologetically.

"He's there . . ."

Houghton went over to the spot where the clumsy swaying contrivance had been set down. He looked inside, striking matches. He came back after a little, looking sick.

"He sucked blood from those—er—bites on his hands," he said shakily. "That must have helped a bit. I have a rather complete first-aid kit. I may be able to do something."

He went through the tall grass toward his own tent upon its platform. Inside it, the darkness was inky. His foot slipped, and someone chuckled. A voice said:

"Tuan."

"The devil!" said Houghton under his breath. "I told you to go off—"

"There was a man, Tuan," said the voice of the invisible speaker. "He came into your tent, from the jungle. It is his blood you slipped upon."

Houghton grunted.

"You're a bloodthirsty beggar, Ali!" He found his

first-aid kit and added crisply. "The stories were true. There are devil-things. They do kill men. There are also devils who are men. Go and say that I need haste."

"Aye, Tuan. And I give you this, which the man bore."

The voice was mildly resentful. But the back of the tent billowed out a little and there were several sounds which, if you had been listening exactly for them, you might have recognized. Houghton was left holding an object that had been thrust into his hand by the departing servant. It was queerly hot on top, it was almost scorching, as if a fire, or—say a fuse, were burning within it.

And then, suddenly, there was an outburst of eerie, unearthly screeching in the distance, high in the air. A chorus of terror-stricken howls arose instantly from the camp as if in answer. But the screeching off aloft rose to a bedlam, coming swiftly and terribly towards the howling, panic-stricken men.

Houghton leaped for the platform before his tent, catching up a repeating shotgun on the way. The hot thing in his hands began suddenly to emit a dense cloud of smoke; queerly pungent smoke. He caught the reek of the stuff and swore savagely, then flung it with all his strength away from him into the jungle beyond the clearing. He stood ready with the gun, his eyes glittering savagely.

In the air above the clearing ghastly things seemed to materialize, whirling down from the darkness above. There were wings with filmy feathers upon them. There were great, horrible jaws with white teeth plainly visible. Naked bodies, on which scales could be seen! And they emitted screeches like nothing else out of hell itself. Suddenly they seemed to dart forward. One only seemed to hover above the firelight. It hung there, while the rest plunged into the jungle, shrieking raucously like the packs of hell. The single, lingering monstrosity began to descend, and men screamed in blind panic.

Houghton raised the automatic gun. It began to bellow, and what seemed to be a long-continued spurt of flame shot out of its muzzle.

CHAPTER II

"GOT him!" said Houghton in tight-lipped satisfaction.

He leaped down from the tent-platform. The natives yet in the firelight were fleeing in blind panic from a Thing that flapped and writhed and screeched, like something out of hell, upon the ground. Off in the jungle, some forty or fifty yards distant, there was a discordant din like nothing human or undemoniacal. It sounded like devils holding carnival in the blackness, and above their ghastly outcry there arose the sudden shrieking of a human being in torment.

Those shrieks came nearer. A human figure came leaping blindly into view. It was torn and ripped and sightless. It was gory and horrible to look upon. It shrieked, and shrieked,—and the natives were shocked into a frozen immobility—and it bounded among the fires, still shrieking, and suddenly spun around and dropped dead.

Then a shotgun boomed again. Van Hoff, the spectated man, had a weapon at his shoulder. He fired both barrels at the flapping Thing that screeched so

horribly among the fires. It heaved convulsively at the first shot. By the second it was blown almost to atoms. Van Hoff darted forward and with hysterical haste lifted the fragments with the barrel of his gun and thrust them into the middle of the biggest of the fires. He heaped coals upon it savagely.

Houghton still stood facing the edge of the jungle from which came the raucous, hellish din. The automatic shotgun was again ready. The girl in the camp held a little revolver in a desperate readiness. The young man with the exhausted look stood by her, his whole figure indicative of despair, with no weapon save a *parang* at hand.

But nothing more happened. Nothing at all. The din off in the jungle lessened. From shrieking, demoniacal bedlam, the noise dwindled to ghastly, querulous screeches as of fiends complaining that they found no more evil to commit. One of the hellish voices rose above the jungle-trees and squawked there. Another followed it up and joined it, still keeping up its horrible complaint. Then a body of the unspeakable things rose upward and went off through the air to northward. Their complaints faded and died away.

Houghton turned and walked toward the campfire. "I wish you hadn't burned that damned thing up," he protested. "I wanted to look at it!"

"It's back in the hell it came from!" rasped Van Hoff. "If you want to look at it, go there and see!"

He turned upon the babbling, terrified natives and cursed them frenziedly for their fright.

Houghton went quickly to the dead man. The sight turned him sick. He was torn and shredded. The bare flesh of his body looked as if he had been attacked by hundreds of knives. No single cut was deep. There was no flesh missing. He had simply been ripped nearly to pieces by the ghastly, squawking devil-things for the pure joy of doing evil.

"You'd better get him covered up," said Houghton shortly to the man with the look of exhaustion upon his face.

That man nodded.

"My name's Taine," he said absurdly. "This is Miss Betty Hale. I don't understand. You shot one of the devil-things."

"Of course," said Houghton mildly. "Of course I shot it. Van Hoff blew it nearly to bits after I brought it down. Why didn't you shoot at it?"

Taine considered, his eyes glassy.

"I've tried," he said at last. "But I never hit one. I—I was going to use a knife this time. They say devils can't face cold steel."

Houghton looked at him queerly. But he went back to his tent, fumbled in his medicine-kit, and returned to the unconscious, barely-breathing man in the hammock. He stayed there, working busily, for half an hour or more. Then he came away.

Betty Hale was watching him.

"I've got his pulse stronger," he said briefly, "and to me he seems to be breathing more naturally. A bit of strychnine for his heart did most of it. I should think he'd have a chance to live, now."

Taine licked his lips.

"You've killed one of the devil-things, and you say Grahame may live . . ." He stopped, and gazed at Houghton with straining eyes. "Have you slept lately?" he asked woefully.

"Surely," said Houghton.

"If—if you will be near Betty for a while," said Taine slowly, "I think I might risk sleeping. Would you—"

"Surely, old chap," said Houghton gently. "Of course!"

"It's a promise?" insisted Taine hopefully.

"It's a promise," said Houghton. "I won't go six feet from her while you're asleep."

"Just a—just a few minutes," said Taine. "I'll be all right . . ."

He lay down on the ground, relaxing utterly. His eyes closed of themselves. He twitched,—and slept heavily, in the horribly deep sleep of utter exhaustion. Betty looked at him and began to cry softly.

"He's watched over me for four days!" she gasped.

"He—made me sleep, but he didn't dare . . ."

Houghton said:

"He's easier now. He knows they can be killed. And I have an idea why men die from their bites. He shot at them?"

"Y—yes . . . And he hit them, but they didn't die. He knew he hit them! And he's a wonderful shot!"

"Hm . . ." said Houghton. "Odd that I killed that one. I'd like to see his shells."

She got up obediently and have him a box of shotgun shells from one of the tents. Houghton picked one out, squinted at the wad in the murky firelight, weighed the thing in his hand, and frowned.

"It ought to be all right . . ." He fingered the shell uncomfortably. The sleeping man twitched a little in his sleep. Houghton suddenly pulled out his knife and cut through the metal shell-case. Shotgun ammunition must be metal-cased in the tropics. A fine, powdery dust came out of it.

"The devil!" said Houghton, staring at the stuff in his hand. "There a white man in this too!"

"What—what is it?"

Houghton's eyes had narrowed queerly.

"Native devilment goes a long way," he said shortly, "but it wouldn't go this far! This is white-man work. Oh. This stuff is butterfly-shot, used by butterfly-hunters. It's used to shoot moths and butterflies that can't be netted. It will kill a good-sized moth at ten yards without mangleing it. But that's all it will do."

He tossed the cut-open shell in the nearest fire, realized what he had done, and raked it out again before it could explode. With it, as it came out, there was a bit of charred flesh and half-calcinated bone.

"Hullo! The devil-bird's remains! I wish I were a bird expert."

"Frank—Mr. Taine is an ornithologist . . ."

"Then we'll have him look at this when he wakes up."

He sat down again and filled his pipe, frowning. "Nasty business, this. I'd heard the rumors, but they sounded like native devilment only. Now it looks like a white man's mixed up in it. Tell me. How'd you come to join this expedition?"

"I was in Brooketown. Mr. Van Horn was organizing the party. Frank—Mr. Taine introduced him and he asked me to join as artist!"

"What's the object of the trip? Have you done any work yet?"

"No . . . I haven't. I've felt guilty, too. The object of the expedition is to gather birds and plants in the Baru district, for museums and so on. It's forbidden country, but Mr. Van Hoff said that was nonsense.

Just a rumor of native trouble. He's been through here often, with no difficulty at all."

"I know he has," said Houghton. "I'm in the Constabulary. Er—you were hard pressed for money when you agreed to come, weren't you?"

"Y—yes . . . But why?"

Houghton waved his hand.

"You dislike and distrust him. So does Taine. Else he'd let Van Hoff do some of the guarding instead of trying to kill himself by going without sleep."

She said reluctantly:

"It's just that—Mr. Van Hoff is so excitable. He seems to have no self-control at all. I—accepted his offer because it meant such a large salary. I—could get home . . . But he—began to be attentive to me . . . Not very pleasantly . . . Mr. Grahame knocked him down, once. And Mr. Taine tried to help me avoid him, but I couldn't altogether. At last he asked me, very condescendingly, to marry him. And when I said I wouldn't, he flew into a rage . . . He's—unstable . . ."

"You mean," said Houghton drily, "you're afraid he isn't altogether sane."

She did not answer directly, but her face was strained and pale. Presently she nodded almost imperceptibly.

"Very pretty," said Houghton tonelessly. "Very pretty!"

He stirred. She turned to search his face.

"What do you think?" she asked helplessly. "Why do you ask all these questions? Where do they lead?"

"I'd like to know myself," admitted Houghton grimly. "I'm carefully not thinking about the devil-birds themselves. Every time I think of them I suspect I'm insane. But I'll look for an explanation for them later. What worries me is the shells. A thing like that isn't an accident. And why wasn't it discovered a long time ago? A white man caused their switching,—but what conceivable interest could a white man have in devil-worship in the interior of Borneo? What good would it do him?"

She closed and unclosed her hands. Then, quite suddenly, a drum began to beat off in the jungle. It was a solemn, a sedate, a funeral sound. It was depressing. It was doleful. It was unspeakably gloomy. The girl turned her head to stare affrightedly in the direction of the sound. Houghton cocked his head on one side and listened keenly.

"This is going to be amusing," he said cryptically.

They sat in utter silence. Minutes passed, and the drum-beats did not vary a heart-beat in their tempo. Only very, very slowly was it clear that they were growing louder. The men by the campfires had swung about to face the noise. The firelight glittered upon their eyes. They were keyed up, high-strung to the ultimate of tensi. The drums grew louder, and louder. Their funeral rhythm remained unaltered.

A man among the bearers said a low word. Another man answered it. A rustling spread among the men. The drumming was very near.

Houghton glanced toward them, and his own eyes glistened.

"The men," he said in a low tone. "They're ready to fight. They know these are men, not devils, they're facing now."

Parangs slipped from knotted sashes. The men by the camp fire crouched a little. The drums were very near indeed . . .

They stopped. Stopped dead between two beats. Dead silence fell. Then there was a screech from the edge of the jungle. It was raucous, ghastly, like no sound utterable by any creature not of hell. Instantly thereafter a dozen other devil-things took it up. There was a devil's carnival off in the bush.

The men by the camp fire cringed, their courage gone at the first of those unearthly sounds. They whimpered unashamedly.

Then a figure stepped boldly out into the open and the light of the fires. It was a man, naked save for a loin-cloth and a monstrous headdress like the flying devils' tooth-beaked heads. And upon his shoulders sat two Things like those which had soared above the clearing but a little while since. They were horrible to look at. Gruesome, many-toothed jaws projected out before small scaly heads. Skinny, scaly bodies supported half-spread filmy-feathered wings. The devil-things lurched and teetered upon the oily skin of the naked masked man of the headdress.

He stretched out his hand and declaimed sonorously. He was pointing at the hammock. The devil-things screeched, and a monstrous cackling as of demoniac laughter came from the jungle behind them.

There was a sudden booming of a shot-gun. Van Hoff had come out of his tent and scornfully fired both barrels, apparently at the legs of the figure on the edge of the clearing. But he showed no sign of injury, and the devil-birds stirred uneasily, and that was all. The man ignored the shots.

The monstrous headdress pointed toward the exhausted, slumbering man upon the earth. Again the hellish outcry from the Things on his shoulders, and its enhanced repetition by the invisible devils in the bush.

A third time the arm was outstretched. It pointed at Houghton and he nodded meditatively as the brief ritual was gone through. He felt the girl next to him pressing close as the clamor of the devil-things arose. She was trembling uncontrollably.

"Growing a bit monotonous, eh?" he said quietly. "Steady!"

He heard her breath coming quickly; the swift panting breaths of terror.

But the masked, monstrous figure ignored her. He turned and pointed his hand at Van Hoff, and opened his lips, and as the uproar that sounded like demons out of hell burst forth, Van Hoff flew into a screaming rage. He bellowed, with froth coming from his lips, and fumbled frantically for shells to put in his gun. . . .

The masked figure disappeared. He vanished as if he had melted into thin air. The heavy, depressing beat of the drum resumed. Its doleful, funeral tempo remained the same. It began to retreat slowly from the clearing through the jungle. . . .

The men about the campfires seemed shriveled up with terror. They whispered and babbled and waited helplessly to one another, and in case of any emergency—as Houghton realized grimly—they would be just about as valuable as a sick headache.

"Well, that's that," he said drily. "Quite theatrical. Not as bad as I feared, though. The devils are angry because no woman has been given to them. Grahame, Taine, Van Hoff and I, are all to be slaughtered, unless we deliver you to the devil-birds. This sounds like pure native. The white man is either not present, or he's been killed—as he would be sooner or later, anyhow. But I fancy we'll be able to take measures. Since

we know what's the matter with the guns, I shall be astonished if we don't wipe out that breed of devil-things,—bird or lizard or whatever it is."

"I'm frightened!" gasped the girl.

"Nonsense!" said Houghton. "Why, your friend Grahame was bitten up badly, and he's not only alive but recovering!"

He laughed reassuringly. But his eyes grew suddenly wide and intent, fixed upon the slowly swinging burden in the hammock. His laughter broke off abruptly. He came back, his lips compressed.

"I was mistaken," he said even, "about part of what I said. Grahame was getting along quite well a few minutes ago, but now he's dead."

CHAPTER III

AT dawn, there were four white men's tents pitched in the clearing upon patches of scraped-bare earth. There were little piles of ashes where cooking-fires had been. One or two of them still smoked faintly and had dull-red coals in their depths. Off at one side an Indian snake-proof tent stood upon a bamboo platform. That was all. There were just four living human beings and two dead men left in the clearing. The bearers had slipped off into the jungle and fled feverishly during the night.

It was the girl's cry which roused Houghton. He was up instantly, an automatic pistol in his hand.

"What is it?" he demanded sharply.

"The men," she said with difficulty. "They are—gone!"

Houghton growled furiously in his throat.

"And our friends in the jungle had to stick to devils while they were here! What a mess!"

He pushed his way angrily out of the tent. The clearing was seemingly deserted. He strode about, and frowned at the tarpaulin-covered heap of cases which held the expedition's supplies. He kicked up the cover and peered under it.

He went back to the tent, swearing softly under his breath. Taine, picked-up in his exhausted slumber and laid full-length on a cot, slept as heavily as before. But his face was already smoothing out. The drawn look was leaving it. Betty was watching anxiously as Houghton came back.

"They took nothing with them," he said shortly. "They went away with what they wore, and nothing else. Where's Van Hoff?"

"He was watching . . . You know he said he would keep guard till daybreak."

"And he let the men slip away!" snapped Houghton. "He's—where is his tent?"

In silence she pointed. Houghton went grimly toward it. The flap was shut, but he heard heavy breathing within. He forced an opening to look through. A pungent, stinging odor filled his nostrils. It was a smoky odor, stale and disgusting. Van Hoff half-lay, half-sat in a chair. His hair was awry. His thick-lensed spectacles had slipped until they dangled ridiculously from one ear. His eyes, even closed, had that queerly weakened look of eyes which are always sheltered behind glass.

Houghton stared about inside the tent, grinned savagely, and went back to the girl.

"He's asleep," he said sardonically. "He's been smoking hemp. Hemp! Opium's bad enough . . ."

One man sunk in drugged sleep. One man still deep in the slumber of exhaustion. One man dead, Houghton considered grimly, looked at Taine, and said shortly:

"You'd better get him waked up, if you can. I'm going to get rid of that dead native."

The body of the man, who had come shrieking from the jungle to drop dead among the fires, still lay where it had fallen, though covered by a cloth. Houghton went to the pile of cases, rummaged among them until he found a few tools, and set to work . . .

Presently he came over to Betty, talking to Taine, and shaking him to help him out of the depths of exhausted sleep.

"Hullo," said Houghton. "Your sleep was the only benefit anybody got out of last night. Come over here, will you?"

Taine stood up, staggered a little, and shook his head to clear it.

"I slept like a corpse," he said sluggishly. "What's the trouble?"

"Come over here."

Taine followed and looked down at the dead man. He started.

"He's not one of our men!—Where are our men, anyhow?"

"Gone," said Houghton. "Slipped away during the night. And you know how frightened a Malay has to be to travel in a jungle at night! Look at this man again."

Taine had gone ghastly. He got a grip on himself again.

"I'd—rather not," he said hoarsely. "What is it?"

"A red spot over his eye. That means *dacoity*. Out to kill someone,—or on a plundering expedition, anyhow. You see?"

Taine hesitated and licked his lips.

"He—was off in the jungle and the devil-things killed him. They killed him instead of us."

Houghton smiled grimly.

"Yes. He was one of the men working with the devil-things. For a—sufficient reason, the devil-things were intended to attack my tent. For another sufficient reason they went off into the jungle instead. They happened to find this man. They killed him. That's all. I just wanted to be sure he wasn't one of your men."

"That red spot. . . . No, he couldn't have been one of ours. They were good men, for Malays and such."

Houghton held up a shell, cut it open, and poured out the contents into Taine's hand.

"You've been made defenseless. You see?"

"Butterfly shot!" said Taine hoarsely. "My God!"

"Some one," said Houghton drily, "has planned to do something they don't want you to interfere with. You know the native angle. I'm fighting white-man brains and native devilment. Are you fighting with me?"

Taine shivered a little.

"First," said Houghton drily, "we'll get this man underground, and your friend Grahame, and then take stock."

Taine worked with him. It was a gruesome and a horrible task. The jungle seemed all fresh and new in the early morning sunlight. The air was not yet hot. That thin, tenuous mist, which hangs low at nightfall, was rising in filmy tendrils to dissipate in the sun's early orange rays. For minutes there was no sound

save those made by the working men except the digging. "Now Grahame," said Houghton briefly.

They went toward the hammock. As he bent over it, Houghton saw a thing he had not been able to discover by firelight. He straightened up with a jerk, a long slender sliver of palmwood in his hand.

"A *sumptan* dart," he said quietly.

This is the blow-gun of the East, projecting poisoned arrows by the breath.

Taine fingered it gingerly, looking at the gum-smear needle-like point. A shred of silky floss still clung to the blunted end, where a wisp of felted stuff had sealed the blow-gun bore behind the tiny missile. With a shudder, Taine tossed it into one of the smoking ash-heaps that had been fires.

"Last night," added Houghton detachedly, "a native with two devil-birds on his shoulders indicated that Grahame first, then you, then me, and then Van Hoff, would be the order of our being murdered. You're slated to go next. We'll try to upset the series. Van Hoff, by the way, is in a stupor from smoking hemp mixed with his tobacco."

They finished what had to be done for Grahame. Betty Hale hid her face so she could not see.

"Now I'm going to get my shells," said Houghton. "We'll load up with them. By the way, I fished one of the bones of that devil-thing out of the fire. You're an ornithologist. You might look it over."

He moved to his tent, the one upon the bamboo platform. He disappeared into it. Taine went quickly to where Betty was now looking uneasily at the jungle's edge.

"I feel—as if eyes were watching us," she said uncertainly.

"They probably are," said Taine dully. "Where's that bone Houghton had?"

She showed him. He set to work to scrape the wing-joint clear.

There was a booming of a shot from Houghton's tent. Taine started up. There was a second shot. Then a swift succession of bellowing explosions from within the separated tent.

Taine reached for a shotgun, and dropped his hand with a groan.

"Butterfly-shot!" he said desperately. "Butterfly-shot!"

Then Houghton came backing out of his tent, his weapon pointed within. He came slowly down the ladder, watching the interior. There was an almost inaudible thumping sound upon the bamboo platform.

Once on the ground, he came back to the others. His face was white, but he managed to smile grimly.

"We're not as well off as I expected," he observed, "as far as ammunition goes. Mine is gone. My tent's been entered from the jungle. They took all my ammunition and didn't even bother to replace it with butterfly shells."

Betty stammered:

"Y—you were sh-shooting . . ."

"Yes," said Houghton grimly. "The ammunition-cases were full of something else. There was a six-foot hamadryad—a king cobra—in one of them. I jumped back when I heard it hiss and knocked over two or three more cases. I—er—I can swear I shot three snakes. They were thumping themselves mad as I left. . . ."

There was a raucous shriek overhead. Taine jerked

his head up. A thing was flapping over the clearing. It had a long curved beak, dead-white, with ghastly teeth plainly visible. Its jaws looked like the bare and fleshless bones of a dead thing. It had a tiny head, smaller than the beak itself, in which wicked small eyes glittered. It had a scrawny, scaly body, impossibly lean and unbeautiful. But wings with filmy feathers upon them flapped in the morning sunlight, and long, indubitable feathers projected from its hinder parts.

It shrieked again, and its voice was ghastly and incredible. Then it fluttered downward. It was not only unbelievable, it was impossible. It was not conceivable that such a thing like that had existed at any time, it could only be imagined as uttering that unearthly shriek above the lush and monstrous vegetation of a carbaniferous swamp.

But it landed upon the ridge-pole of Van Hoff's tent. It folded its wings with a ridiculous care. It began to move up and down the ridgepole of the tent. It used its feet awkwardly. It looked as if it were executing some gruesome, horrible dance upon the tent-top, above a man who lay stupefied by the fumes of *cannabis indica*. It held the fearsome beak pointed downward. It stretched its skinny, scaly neck in quest of a possible opening. . . .

The three watched it in a queer dead silence. It shrieked again, querulously. Betty said through chattering teeth:

"If—if I could laugh, I w-would! It's f-funny!"

Houghton moved suddenly.

"It seems to be in a sociable mood. What say we catch it? A butterfly-net might help. I'd like to be sure—"

But there was a tiny, indescribable sound over at the edge of the clearing. It sounded rather like a muted "*phut-t-t!*" The unholy Thing on the ridge-pole screamed hellishly and leaped upward. It flapped aloft, shrieking, and went heavily off above the treetops.

Houghton caught Betty's arm in a grip of iron.

"Get down! Taine! Down! Quick!"

He flung the two of them in a heap behind a fortunately placed tent, as there were half a dozen small sounds, similar to the first. Then there were tiny tapping noises. He thrust them into the tent and pointed upward. Sticking part-way through the heavy duck there were slender slivers of wood.

"*Sumptan* darts," he said drily. "We don't go out for the rest of the day."

"What. . . ." Betty started to ask a question, but the words died on her lips. She stared at Taine and at Houghton. Her teeth began to chatter again.

"White-man brains," said Houghton coolly. "They know what they must do. But did the white man order this, especially, or did he tell them beforehand how to meet an emergency like this? They can't let us go. We know too much. They shot that thing with a blunt dart to keep us from finding out more. That's white-man brains, used for the benefit of a native chief who will kill the white man as soon as he dares. A native is always afraid of a white man who helps him to be a scoundrel, and he always kills him sooner or later."

Taine almost snarled, in the reaction of taut nerves. "Why worry so damned much about a white man?" Houghton shrugged.

"I like to know things," he said drily. "How are you off for shells? Not shot-gun shells—they're useless—but revolver-shells?"

"I—I have a revolver," said Betty. "It's loaded."

Taine said unsteadily:

"Van Hoff objected to my being armed. I've nothing."

Houghton grimaced to himself. He turned to Betty. "Let me see your revolver."

She put it in his hand and he broke it open, looking at it critically. His face hardened.

"I'm sorry. The firing-pin's filed off. It's no good. I wonder about my own?"

He wormed his way to the end of the tent and slit a hole in its side with his knife. There was dead silence outside, save that very, very far away there were recurrent, caucous shrieks from the devil-things that had flapped dismally away in the bright sunshine. Houghton peered for a long time through the slit he had cut. Suddenly he fired. There was a strangled cry at the edge of the clearing, then silence once more.

He counted small brass things in his hand.

"I've twenty-five shells," he said carefully. "After they're gone, things will be awkward."

CHAPTER IV

THE sun rose high and the heat became stifling. The one small tent, exposed to the direct rays of the sun, became furnace-like. Houghton filled his pipe and lighted it. He smoked meditatively, keeping up an essentially casual watch through the hole he had cut in the tent canvas.

"Why don't they rush us?" demanded Taine hysterically. "They can kill us if they do!"

Houghton took his pipe from his mouth and smiled quietly.

"To be sure. But some of them would die. You forget that a savage values his life just as much as we do ours,—except when he's wrought up to a high pitch of excitement. And they aren't that, now."

Betty said unsteadily:

"N—neither of you has said what is in his mind. But I know what the men out there want. They—want me."

Taine growled thickly in his throat. Houghton said drily:

"I don't know, Miss Hale. There are brains back of this. Two sets of brains. One is intelligent, and one isn't. It depends on which is in charge at the moment. Molesting your party was a mistake from the first. It may be that the stupid man is in the saddle now,—the native. If he is, you may be right. But if the other man takes charge, and he is a white man, and he is not quite mad, he will draw off these men in the bush and let us go peacefully back to Brooketown."

Taine stared at him. Betty looked hopeful.

"You think maybe we'll—get out of this all right?"

Houghton shrugged.

"If we can postpone decisive action long enough, I'm sure of it. White people in Sarawak can't disappear without inquiry being made. The trouble is that though our friends in the jungle know it, they're on the horns of a dilemma. If they kill us, we'll be searched for. If they let us go, we'll report that someone up here is going *dacoit* from time to time, and using domesticated devils in the pursuit."

"Then—what will they do?"

Houghton shrugged again.

"It depends on the white man."

"White man?" said Taine. "You're sure? Who?"

"Only a white man," said Houghton patiently, "would see that an affair like this could only succeed if nobody believed in it except the victims. Nobody did. No one could credit rumors of flying devils with teeth and scales. Only a white man would see the advantage in using incredible means of murder and blackmail. The devils themselves;—by the way, Taine, what did you learn from that wish-bone I fished out of the fire?"

Taine hesitated, swallowed, and said wretchedly: "Nothing. It looks half bird and half reptile. It's like nothing seen on earth before."

Houghton looked at him absently. Taine buried his face in his hands and groaned.

"My God! Brought up here and trapped. . . ."

"We can get out," said Houghton patiently, "if we can only find some shells,—and if the brains of this affair can be reached and reasoned with. If he's white he's in more danger than we are. He's bound to be killed by the native chief he's advising."

Taine said desperately:

"I—I'll go into the jungle and let them take me! They'll ask me questions, anyway, before they kill me! I'll—"

"If anybody's to go," said Betty through quivering lips, "I go. Because if I go they—won't kill anybody else. They said so, and they always let men go if they get a—woman and loot. . . ."

Houghton's face was expressionless. But Taine looked like a man in hell.

"I—can take some poison with me," said Betty, her face dead-white. "And—"

"No! No! My God, no!" gasped Taine. "Betty! Please don't! Please don't say—"

He went all to pieces, as only a man, who has been for many days on the thin edge of breaking down, can go to pieces. Betty took his head in her lap, as he gasped hysterically on the floor. She soothed him maternally. Houghton regarded the two of them with his face like a mask.

Then he said:

"I think Van Hoff's waked up. I hear him moving." He shouted loudly. "Van Hoff Van Hoff! Dacoits in the jungle! They shot *sumpitan* darts at us! Watch out!"

A sleepy, acrid snarl came from the tent in which Van Hoff had been slumbering. The heard him moving about in the tent. Then the rustling of his feet upon the trampled-down jungle-grass outside.

"He'll be shot!" whispered Betty fiercely to Houghton.

Houghton was watching sharply. Van Hoff had come out of his tent. He stood teetering upon his feet as the fresh air cleared his head. His eyes were reddened and his face was unhealthily white.

"Dacoits!" he snapped. "Fools! I know these men! All men in these parts! I have been through here many times! I will go and talk to them!"

He raised his voice, shouting uncouth syllables at the blank green wall of the jungle. After a long pause a murmur came back, a single voice speaking with almost effeminate softness. Houghton drew in his breath sharply. Then he turned to Taine.

"What did he say?"

Taine had stopped his racked breathing to listen.

"He named a man—," he said with difficulty. "One he knows. He asked—if that man was in hearing. The man answered."

"He'll argue, then," said Houghton mildly, "and try to bring the man to reason. I could suggest an argument or two."

He bent again to the canvas. He stiffened, and then he relaxed. He watched very calmly for a long time. Van Hoff walked across the open, with his rifle across his arm, toward the edge of the jungle. He neared the space where the trees rose up sheer and tall toward the sky. He halted there, speaking the uncouth sounds of this inland dialect in a tone suggesting acid disapproval. Suddenly he stepped forward, and the jungle swallowed him. From the first moment, Houghton could not possibly have gone out to pull him back without exposing himself past defense to a cloud of the tiny poisoned blow-gun darts.

He straightened up and said evenly:

"He went into the jungle. He seemed to be chatting with someone before he vanished. How well is he known?"

"He's been through here half a dozen times," said Taine dully. "I came with him once before. He collects things. Plants and animals and rub— . . . Things of that sort. He's had dealings with all the natives up this way."

Houghton nodded, though his eyes glinted queerly.

"Very good. He'll be able to put up quite an argument in favor of our being let alone. Will he do it?"

"I don't know," said Taine apathetically. Then he added, "He bought all the supplies for the expedition."

"Meaning that he may be the one who changed the shells to butterfly-shot?"

Taine nodded. His face was gray, as he looked at Betty Hale. There was a horrible dumb anguish in it, Houghton said without any intonation:

"You're thinking that if you hadn't introduced him to Miss Hale, she wouldn't be in this mess, aren't you?"

"Don't!" cried Taine frantically. "My God, man! Don't you see I'm in hell over that now?"

Houghton shrugged.

"Why not?"

He turned his back and peered again out of the opening he had made. The face of the jungle was blank and green and unmoving. The awful still heat of midday had settled down. Leaves drooped listlessly. Little lizards basked in the blistering sunlight, motionless as the earth on which they rested. Insects buzzed and droned and flew in iridescent, glittering swarms. The fading reek of spilled kerosene filled the air, peculiarly pungent amid the sickly-sweet scents of flowers and the oddly earthy smell of decomposing vegetable matter.

"No sound of a fight," said Houghton calmly. "One would expect Van Hoff to be able to get off at least one shot if he weren't being allowed to argue."

"He—he might not try. . . ." Taine gagged on the words.

Houghton regarded him thoughtfully.

"He might—er—sell out the rest of the party?" he asked mildly. "In fact, you think he may be the hypothetical white man I spoke of?"

Taine, his face ashen, nodded.

"He's half-mad," he managed to say. "He smokes hemp. That drives a man insane, ultimately. And he—has an idea that there are rubies up here. . . ."

"Go on," said Houghton.

"He'd—sell us out for rubies," said Taine desperately. "He—would!"

Houghton waited. Taine's throat worked. Hough-

ton still looked at him with a curious air of one expecting certain definite statements, which when spoken would break down a present suspended distrust. But Taine closed and unclosed his hands and said hoarsely: "That's—all!"

Houghton turned from him and put his eye to the slit in the tent again. Still silence. Betty was looking at Taine with a new strange uneasiness.

An hour went by, and she looked from one man to the other, her face rather pale. Houghton kept his back turned to Taine and smoked with no sign of uneasiness save a fairly constant watch upon the edge of the jungle. Once or twice he scrutinized the rest of the clearing with some care. The second time Betty managed a smile and said uncertainly:

"I'm watching too."

Houghton nodded.

"If they delay long enough, we win. But this is difficult for you."

"It is hard," she admitted faintly.

Houghton thoughtfully produced a small pellet from a tiny box in his pocket.

"I don't think that you will get panic-stricken," he observed. "This may help. It's not to be taken until you absolutely have to take it. Not until the last possible instant! It—er—er will be quite painless and very, very quick. I give it to you in case. I am waiting for something to happen in our favor. Something should, sooner or later."

She took the pellet with a further slight blanching. But she smiled at him bravely. Houghton looked thoughtfully at Taine. And Taine looked as much like a corpse as any man could look and still be living. His eyes went to Betty every now and then, and he clenched his hands desperately. His throat seemed dry. He opened his mouth once, desperately, as if about to speak. Houghton said drily:

"Well?"

But Taine shook his head, unable to utter a sound. The sun began to decline toward the west. There was still no sound, no sign of enmity from the jungle. The same distant bird-cries broke the wilderness-silence now and then. The afternoon breeze moved the branches of the jungle-roof very slowly, with a slow, drawn-out, sighing sound. Then the shadows of the tall trees grew long, spreading out across the clearing. "We do not build a fire," said Houghton. "They expect it, but we do not do it."

Taine made an inarticulate noise in his throat. Betty Hale said unsteadily:

"Mr. Van Hoff hasn't—"

There was a sudden, raucous squawk from the jungle. The voice of one of the devil-things. Half a minute later Van Hoff stepped into view, the rifle still lying over his arm. He came back toward one of the tents.

Breath rasped in Taine's throat. His hands clutched convulsively.

"Well?" said Hughton mildly.

Taine choked. Houghton shrugged and reflectively touched the row of revolver-bullets in his belt. Van Hoff came stalking toward them in the swiftly dying light. His eyes were glittering with triumph.

"I have done it!" he announced sardonically. "It is all settled!"

He was no more than ten feet from the mouth of the tent. Taine was moaning softly, making little whimpering noises. Houghton had a peculiar feeling as if

Taine were groveling on the earth, somehow, though he sat upright. Van Hoff regarded the three of them with his fanatical, glittering eyes.

"Taine!" he rasped. "You know what you have to do!"

Houghton was watching Van Hoff warily, his hand inconspicuously on the butt of his automatic. But Taine made a desperate movement,—and Houghton knew an instantaneous impression of flame spurting toward him and knew in astonishment that Taine was shooting something. Then the world tumbled to pieces all about him.

CHAPTER V

A RAUCOUS, unearthly squawk, not a yard from Houghton's ear, was the first sound he heard. Then he felt joltings. Then his head ached intolerably and he felt the heat of a body beneath him and a sensation as if his arms were being pulled from their sockets. Then he opened his eyes and saw torchlight.

Caked blood and mud upon one side of his head told him of a bullet glancing from his skull after knocking him unconscious. His feet were bound together and his knees had been doubled up so they would not drag upon the ground, and he had been put upon the bare, sweaty back of a brown-skinned man like any other package of inanimate merchandise, with his arms over the bearer's head to transfer most of his weight to the man's shoulders. He was one parcel of a long, long, torchlit procession which strung out almost indefinitely before him.

The man just ahead carried cages, unwieldy thing of split bamboo, in which were devil-things. Torchlight shone upon the cages and the ghastly objects within them. The monstrous saw-toothed beaks, dead-white and fiendish to look at. The impossibly scrawny, scaly bodies with their anomalous feathered tails and wings. The deadly, dull-black eyes. One of the creatures squawked again as a misstep of the man, who bore its cage, flung it against the bars.

The trail was a game-trail, winding and twisting through the dense jungle which covers all of interior Borneo. It was not level and smooth. Here, at least, it clambered up steep slopes, where the wet earth was slippery and the footing uncertain, and once it went over rocks—though the jungle thinned out only a very little—and then it dived downward over more of the slippery ground. Torches flared high at frequent intervals. There is probably no pure race in all Borneo, and there is enough of Malay in even the Muruts and Dusuns of the interior to give them an acute distaste for unlighted travel along game-trails at night. Far up ahead, men were chanting throatily. In part, no doubt, it was an official method of expressing triumph. But no less certainly it was a method of driving off such stray carnivora as might otherwise blunder upon the moving men and charge the caravan in pure funk at being cornered.

Ahead of the cage-bearing man there were half a dozen more, bearing cases and boxes from the camp. Houghton could see no farther until the trail dived steeply, and then climbed again, when by the torchlight he could see white-clad figures among the leaders. One would be Van Hoff. One slender figure he knew to be Betty Hale, by the disheveled hair hanging down

her shoulders. The third could not be anyone but Taine. And Houghton saw rattan cordage about Taine's arms and body, which seemed inexplicable.

The strain on his arms was outrageous. He struggled to ease them, and his bearer halted with a grunt, swung him indifferently off in a heap on the ground, loosened his legs. The circulation in them had practically been stopped, but he managed to struggle to his feet. Burden-bearer after burden-bearer went by, none anxious to be left behind in the dark jungle. A *parang* went half an inch into Houghton's ribs, and he saw his former bearer motioning down the trail. Houghton hesitated for the fraction of a second, and then the receding torches showed him a furtive movement behind. He turned and plodded upon wavering, numbed legs after the triumphant line of men which went on along the jungle-trail with men chanting throatily in front. His feet had no sensation in them at all. His knees ached and tingled. His head was a throbbing torment as the aftermath of the bullet that had stunned him. But he went on twenty yards, thirty, forty . . . A frog chirped.

It was not the cry of a night-frog at all, but the man who drove him onward would take at least part of a second to realize it. Houghton stumbled, reeled, and fell. His guard prodded him indifferently with the end of his *parang*.

Then that man made a certain choking sound in his throat and prodded no more.

Houghton got up groggily. He heard a blade being wiped on the soft jungle-earth.

"You're a bloodthirsty devil, Ali," he said shortly. "Why didn't you hit him on the head?"

A wavering flicker of moving torch-light showed almond eyes gleaming amusedly.

"I bring word, *Tuan*," said the invisible figure.

Houghton grunted.

"Loosen these cords on my hands so I can get rid of them as I please," he ordered. "How long will they be?"

"Till tomorrow, *Tuan*. Early."

Houghton swore bitterly.

"That will have to do. What weapons have you?"

"A *sumpit*, a pistol, and a *parang*, *Tuan*."

"Give me the pistol," Houghton commanded, "Now I've got to catch up with the men ahead."

The voice said hopefully:

"There will be killing, *Tuan*?"

"Not if I can help it,—yet," said Houghton. "It's too soon for that."

He began to run clumsily after the traveling, chanting men. A lithe figure ran with him.

"These be evil men, *Tuan*," said the voice persuasively, "and I could cure many of their evil natures with my *sumpit*."

Houghton ran ten paces and growled:

"If you hear shots,—if I shoot your pistol—I give you leave to kill as many as you choose."

He was suddenly alone. He went running and stumbling on, twice falling to his knees in the mucky path. Then he saw the torches. A little later he had caught up, and was plodding wearily at the tail end of the procession, close behind the last man, as if he were being driven mercilessly by a man yet behind him.

For one hour, for two, he plodded after that ultimate burden-bearer. And then he heard shrill outcries ahead. He worked at the rattan bonds about his arms until they were ready to drop off at touch. His moment of

greatest danger would be the moment of entry into the village to which Betty Hale was being led. But the man just before him was accustomed to the sound of his boots, now. He had swung about to glance at him once, but Houghton's mud-smeared, weary aspect and his palpably bound hands—coupled with the improbability of a man coming as a prisoner in this train unguarded was sufficient.

The train had come out into the open now. There were cleared fields, and a sort of palisade not dissimilar to the stockades both Malays and Burmese have fought behind, and beyond it torches flaring high. . . .

There was a throng of waiting figures within the palisade, but most of them were women. Murut women, Dusun women, one or two Chinese women, Dyak girls . . . there were half a dozen women to every man, and the returning party would not nearly make up the disparity. And of the few men visible a good proportion were posted, obviously as guards, at the gate and at intervals along the stockade.

The mob closed in around the returning ones, and the gate went shut with a thunderous crash. The women swarmed about the line of men, laughing, calling to them, plucking at the burdens they bore, behaving in general with none of the usual Oriental feminine reserve toward men. Houghton, playing the part of a dazed and exhausted prisoner, saw at least two terrified girls' faces, one of them swollen with hopeless weeping. But the women of the East consider themselves ultimately the chattel of whatever man happens to seize upon them. These women, stolen or delivered as ransom to tooth-beaked flying devils, had made a truce with the intolerable. It would be nearly inevitable with any woman. It was entirely a matter of course with a native daughter of Borneo. They were probably quite as happy, in the main, as they would have been in their ancestral villages, and the question of respectability did not enter into consideration.

But Houghton pressed forward as if driven hard, coming closer and closer to the three whites up ahead. They had been halted before a larger and more pretentious structure than the rest within the palisade. The crowd thronged about them, but with little or no indication of enmity. Those who are constantly victorious are rarely spiteful.

A small man in regal silks swaggered up to the verandah of this larger building. He gave orders in a soft voice and vanished within, yawning. Those who guarded Betty and Taine began to thrust them to one side. Houghton pushed himself into the group, still seeming dazed. He was accepted without comment, as having been delivered to custody by someone in the press of bodies all about. Betty looked at him in mute horror. Taine seemed to shrivel at sight of him. Only Van Hoff grinned nervously. Van Hoff was unbound and swaggered in the lead, with the other whites pushed after him by tired and short-tempered guards.

There appeared a cage, a monstrous affair of stout wooden bars, deeply-buried in the earth. The structure gleamed in the torchlight. A guard fumbled with a massive door. He thrust Betty into it. He thrust Taine into the same one. He pushed Houghton impatiently so that he stumbled over the threshold and fell heavily within.

Van Hoff's voice came from the outside, snarling and triumphant.

"You have a very tough skull, Captain Houghton.

You will regret it, tomorrow. You were better dead."

Houghton got clumsily to his feet, seeming dazed and only half-conscious. He stood rocking where he stood. Van Hoff laughed unpleasantly.

"You, Taine!" he snarled. "I know your thoughts! I knew them always. I shall tell your lady-love, Miss Hale!" His tone was indescribable, full of malice and an hysterical mirth, and with more than a trace of madness in it. "My friend the *Tonku* Mat Seleh, who is master of this village, has made an arrangement with me. His pets, the devil-birds—which I invented—defend him and supply him with women for himself and for his followers. I have supplied him with such luxuries and arms as he required, in exchange for rubies. The exchange is vastly profitable, but I am ready to retire. I agreed to make a last journey here, to supply him with the great luxury of a young white girl, for which he will pay with rubies. You would be flattered to know the value in rubies which is set on you!" He laughed again. "Mr. Taine was my assistant. He met you in Brooketown, chose you and arranged for you to come with us into the interior—and then was foolish enough to fall in love with you!"

There was dead silence within the cage. Taine choked, his shoulders heaving. Houghton stood stock-still, looking dull and dazed; a mud-streaked, battered figure with a ghastly casque of dried blood and clay upon the side of his head. But he saw Betty clearly, in the light of the torches from without the cage. She stood gallantly upright, with the shadows of the bars wavering across her slender body.

Van Hoff laughed still again, less sanely than before. Only Houghton noted the surly impatience of the weary guards who had escorted all of them here.

"He loved you, Miss Hale!" chuckled Van Hoff in insane amusement. "And I found it diverting to make him jealous by pretending to love you myself. Grahame struck me, it is true, but I had arranged his punishment for that! When the devil-birds attacked our men, to drive them away so you could be delivered without scandal, they killed Grahame by pure accident. So Taine grew frantic for fear they would kill you too! He stayed awake to guard you from any accident, because he loved you—and he was taking you to be sold to my friend Mat Seleh! That is humor, Miss Hale! He lived in agony, because he was bringing you to this village, and he suffered agony for fear that you would be killed, and he dared not tell you of the fate that was in store for you! Is it not humorous, Miss Hale? He loved you, you see!"

Taine broke, suddenly. He screamed at Van Hoff, flinging his bound body against the thick bars of the cage; shouting, shrieking, in an utterly uncontrollable hysteria of rage and despair.

Van Hoff drew back and chuckled.

"I am sure he will enjoy being with you, Miss Hale," he said in quite mad good-humor. "To-morrow he and Captain Houghton will be set to work in the ruby-mine. The *Tonku* Mat Seleh thinks that white men would make better workmen than his followers. Grahame was intended for that destiny, but he died. So to-morrow they will be hamstrung lest they run away, and set to work. Some day the *Tonku* Mat Seleh will take you there to see them. You will laugh, because they will be very humorous, crawling about to dig rubies for the *Tonku* Mat Seleh, and working hard for fear of being beaten. . . . When Captain Houghton comes to

his senses, tell him what I have said, because he will enjoy knowing that Taine could not summon courage to warn him, and that he shot him from behind at my nod."

Betty swayed a little on her feet as Van Hoff moved away. Then her teeth came together with a little click. Houghton moved close to her.

"Nasty, isn't it?" he said under his breath. "But I still have a good deal of hope. I've a revolver, if you would feel safer with it. And there will be a distraction presently, no doubt."

She gasped, and put out a trembling hand to touch him, as if to reassure herself that he had actually spoken.

But then Van Hoff's voice cut suddenly through the innumerable small noises of the village. It was a scream of rage.

"Fools!" he shrieked. "I am the friend of the *Tonku* Mat Seleh! I am the friend—"

His voice was cut off sharply. A massive door clanged shut. Then he began to scream in the native language at an even higher pitch of rage. It kept on. He shouted and raged like a maniac, shrieking profanity and threats. He kept it up until his voice was hoarse and cawing.

"I think," said Houghton drily, "that he is learning that a native always kills a white man who helps him to be a scoundrel. It seems almost to be a biological law."

Betty Hale was trembling. He gave her his hand. She clutched it tightly, like a small child clinging desperately to the hand of a grown-up, when it is afraid.

But then there was a sound above their heads. It was a scaly stirring. Then a devil-thing squawked querulously in the darkness overhead. Another one answered it. There were shufflings and stirrings up aloft. Taine and Betty and Houghton were confined in a huge cage with the devil-birds themselves.

CHAPTER VI

THE first faint light of dawn disclosed them. Half a dozen unearthly creatures, perched in a scabrous row upon a pole across the upper portion of the cage. The cage looked out upon the village and—because the ground slanted sharply—over the farther palisades and out upon the magnificent hillsides of inner Borneo. The village itself was tawdry and unkempt. The houses were small and patched, as if made by indifferent workmen very carelessly, and of all the possible fashions in which a house can be made of jungle-products. There were bamboo huts, and thatch-walled dwellings, and, even at this early hour of the morning, there were women stirring about. The palisades seemed to be guarded as much to keep the women in as for defense, though only quite desperate new arrivals would try to travel through the jungle alone.

But Houghton, instinctively, was staring at the devil-things above. Betty stood close behind him, her face drawn and white, but filled with something like the courage of despair.

The creatures were just about the height of a man's forearm, as one of the rumors had said. Their saw-toothed beaks looked like naked bone. Their bodies were unquestionably scaled, and scrawny in proportion to their heads and wings. One of them seemed just to have awakened, and opened and shut its dull-

black eyes before it stretched its neck and squawked horribly. Three others were moving uneasily upon the perch, waiting for the sunlight to come and warm them. The others still slept, their monstrous beaks hidden under the incongruous wings. Regarding them, even quiescent as they were, they looked like nightmares, like sheer delirium enfleshed, like creatures out of hell or from the unthinkable remote reptilian ages of the world.

But Houghton was in a cage in which they lived. The stench of it was not that of carrion. Compared with the sanitary arrangements of the human dwellings in an inner Borneo village, the cage was even clean. He was staring at the feet of the ghastly things above him. Three toes, clawed and serrated, showed over the front of the perch. A single toe completed the grasp behind.

"Van Hoff said he invented them," said Houghton coolly. "One might say he did not improve on nature. But what did he start with?"

A rosy light enveloped the scabrous, naked-looking things. The last of them stretched its neck and seemed quite impossible to try and preen its scales. A little later, as the sun's rays grew warm, one of them screeched demoniacally, flapped its wings, and soared down to the ground. It hopped about there only a few feet from where Taine lay in the exhausted sleep that had overtaken him after hours of hysterical sobbing. It found a bit of fruit amid the unappetizing mess on the floor. It caught it in its incredible jaws, tossed it in the air, and caught the morsel expertly as it came down. The toothed jaws closed with a snap.

"Good God!" said Houghton, staring with all his eyes.

He moved forward suddenly. His hands were long since free. He went boldly toward the horrible thing, drove it like a goose before him into a corner of the cage, and closed in before it could escape. It flapped wildly, trying to fly straight up and uttering monstrous, unspeakable outcries which sounded like a fiend from hell. But he caught it, clamped its jaws shut with his hand, and came back to Betty.

"Look!" he said briefly.

He lifted a single scale. And it was not a scale. It was a feather cut off not more than an inch from the skin and shellacked with something that looked amazingly like aluminum paint. He pointed to the beak. And its dead-whiteness was due to something like paint, and the serrations upon it were not teeth. They were notches cut deeply in the horny substance of which every bird's break is made. He indicated a gummy brown stuff smeared outside those notches.

"Poison," he said shortly. "The same a *sumpian-dart* is coated with. Not deadly to swallow, but death in a cut. And here. . ."

He pointed to a queer expanse of bony stuff projecting from the top of the creature's head, cut off and smoothed to insignificance.

"It's a horn-bill! Trimmed and decorated to look like the devil's own barnyard fowl! I knew as soon as I saw it toss its food! A hornbill, that's all! Deadly, but only because of the poison its beak is smeared with!"

Betty said shakily:

"I—see. But—hornbills don't attack people. . ."

Houghton smiled grimly.

"They eat fruits and seeds, mostly, but the bigger ones kill snakes. The trick there is—. Have you ever

heard of sheep chewing tobacco?" At her shake of the head he said drily, "they become addicts to it as human beings become addicts to cocaine. As horses in the States become addicts to locoweed. And I know a Chinaman in Sandakhan whose cat is an opium addict. She goes frantic if she isn't allowed to come and lie beside him on the mat when he has his daily pipe. She breathes in the smoke he exhales. They go off in poppy-smoke dreams together. Touching," he added sardonically. "Very! This trick——"

There was a bellowing. Van Hoff's voice again. He was screaming in a maniacal rage:

"I am the friend of the *Tonku* Mat Seleh! You will be killed——"

Houghton pointed. A knot of struggling men were clustered about a larger figure, which heaved at them with insane strength. They dragged it by main force to another cage, not ten feet away from Houghton's, and thrust it inside. The door shut, but the figure remained fast against the grille. A man worked there busily for an instant, and then Van Hoff swung around and shook the bars like a madman.

"They had him tied up," said Houghton, "and cut him loose from outside. I'm afraid we're going to see something rather horrible. You'd better not look."

The sun rose slowly higher above the hills. Those hills were gloriously green, magnificently wooded, covered with jungle from the valleys between them to their topmost tips. The village became more animated. Women swarmed everywhere, and the men most distinctly in the minority. And the women were brightly-clad and bustling, seeming not at all like victims of terrorism, who had been offered up to devils by their affectionate parents and kinsmen. But then, the fact of marriage, in the East, is always of much more importance than the method. As elsewhere.

There were devil-things in the upper part of this other cage, too. It seemed as if hereabouts were the aviary for the hideous things which outside this village passed for devils. There were four cages in all, all spacious, twelve feet high or higher and at least twenty feet long. In them the devil-birds could even fly and keep up their strength. And Van Hoff raged frantically, screaming his wrath, until a man came leisurely toward the cage with a pipe, a box of entirely civilized wax matches, and a little packet of native tobacco.

He put them upon a board and extended them toward the bars. And Van Hoff took them with a trembling eagerness. He looked up and saw Houghton gazing at him. Then he snarled.

"Some fool has blundered," he said savagely. "When the *Tonku* hears of this. . ."

Houghton said quietly:

"Look up at the top of the cage."

Van Hoff did not need to. He was already filling a pipe with trembling fingers. He struck a match. And a devil-thing squawked above him, on its perch near the roof of the cage.

Van Hoff gazed upward and his face went livid. Then he shrieked. He flung the pipe and matches and the packet of seeming tobacco insanely away from him, out through the bars. He went into a truly maniacal paroxysm of rage. And the same man who had brought the pipe and matches went and gathered them together and thrust them through the bars again.

"He wants a smoke very badly," said Houghton to Betty, who stared uncomprehendingly at the appalling

sight. "He was smoking hemp mixed with his tobacco yesterday morning, you remember. And I dare say he invented those devil-birds through discovering by accident what effect hemp-smoke had upon their—er—original form. Like the Chinaman's cat. A sort of time-bomb of hemp-leaves mixed with gun-powder was put in my tent the night I joined your party, to go off and draw the newly-released creatures there to kill me. I flung it off into the jungle, and the devil-birds went there, to reel back and forth in the hemp-smoke. And if you remember, yesterday morning a solitary devil-bird landed on Van Hoff's ten. It was a stray, doubtless, drawn by the hemp-smoke smell from Van Hoff's pipe."

Betty rested horrified eyes upon his face.

"I'll keep talking," he said coolly. "You don't want to watch, and unfortunately we can't go away from the sight or stop it. I think that these birds, after having been clipped and painted and their bills notched, are exposed to hemp-smoke until they become addicts. Like sheep to tobacco, and horses to locoweed, and the Chinaman's cat in Sandakhan. And it drives them frantic. Nobody knows how hemp is going to affect a man, anyhow. Some it makes sleep and some it makes murderous. These birds go mad when they inhale it—but they crave it just as Van Hoff does. They're probably carried in cages and flung aloft, in the darkness. They'll see the camp fires or village-lights and fly toward them, because of their craving and the training they've had. And, if they're to attack, there will be hemp-leaves burning in the fire. Then they go mad. And presently they go aloft again, and see another fire, and go toward that—and are netted and caged again, and given the hemp-smoke they crave. Van Hoff or Taine called them to your camps to kill the bearers and frighten the rest away."

He stopped, to look at the other cage. Van Hoff seemed to be frothing at the mouth with terror and rage. His eyes glittering behind his thick spectacles, he stood still, beating at his breast and uttering scream after scream of pure rage. Houghton reached forward and put his two hands over Betty's ears.

"I don't want you to hear," he said steadily. "It is going to be bad." A tumult of awful screeching came from the other cage. Houghton went a little white and glanced quickly. "He's trying to catch the devil-birds now. With his hands. As I caught one a little while since. He'll kill them one by one, he thinks, and smoke quickly before more of them can be brought to the cage. But it isn't easy to do. The cage is large, and they fly back and forth, squawking. . ."

Shrill screams beat through the demoniacal uproar in that other cage. Houghton's jaw tensed as he saw. Betty's head moved as if to let her see. He forced her face away.

"Don't look!" he said sharply. "The chief is coming. They know, damn them, just about the symptoms. . ."

The small figure in regal silks was coming slowly from the most impressive house in the village. He came leisurely, comfortably. His smiling brown face looked inquisitively into the cage in which Houghton stood, and the chief smiled blandly at him. The *Tonku* Mat Seleh came to rest. A woman placed a skin rug for him to sit upon. He seated himself placidly and fixed his eyes upon the solitary figure in the other cage.

And what followed was appalling. Van Hoff shrieked

at him, and the *Tonku* Mat Seleh answered him in his soft voice, and Van Hoff cursed in maniacal rage, and the *Tonku* Mat Seleh smiled blandly, and Van Hoff tried again, desperately, to catch the scaly monstrosities in the cage with him, so he could wring their necks. And he failed. It was horrible, but very natural, because a native of Borneo—or anywhere in the East—always fears the white man who has helped him to commit atrocities, and sooner or later he contrives one of his own to perpetrate upon the white.

At last Van Hoff sobbed, with his eyes staring and wild, and struck a match with shaking fingers, and tried to blow the drugged smoke he craved out of the cage between the bars, so that the devil-birds could get no whiff of it. And they flapped eagerly to him, quivering at the scent of the stuff that had become so precious to them, and he screamed and flung away the pipe, and it was brought back to him. . . .

It lasted a long time. A hideously long time. The main body of the villagers remained away. It seemed as if this were a private entertainment for the *Tonku* Mat Seleh alone. No more than half a dozen of his guards remained near-by. But they watched fascinated. One of them leaned back against the bars of the cage in which Betty and Houghton were confined, the more comfortably to enjoy the spectacle.

And Houghton's face was dead-white, and he held his hands tightly over Betty's ears, while she followed the horror of the thing by looking at his face. But suddenly the clamor in that other cage reached a climax. Van Hoff was drawing great clouds of smoke into his lungs, trying to become unconscious quickly, while ghastly nightmarish things swooped and circled around him, avid for the smoke that cutled from his lips.

Houghton jerked away his hands, ripped the belt from about his waist, and threaded the strap through the buckle again with a feverish haste. He flung himself forward and slipped the improvised noose between two bars of the cage—and dropped it quickly and desperately over the head of the man who leaned against the bars. That man was so fascinated by the sight before him that he knew nothing until too late. Houghton jerked the noose savagely taut. No eye turned to him. In seconds the strangled man went limp and slumped to the ground. And Houghton reached through the bars, got the *parang* from his sash. . . .

Great slashes of the eighteen-inch blade, in the true manner of the Malay woodsman, and he stepped through a gap in the wooden cage-bars. No man saw him. All eyes were upon that cloud of whirling wings and scaly bodies in that other cage. All ears were filled with the hellish din the hemp-drunk, crazy monstrosities in the cage kept up. Once, from that din, a man's cry came out.

But then, gradually, the noise subsided. The flying things reeled away, still uncertain, still mad, still dashing with parted beaks in horrible menace upon the limp huddle of clothes now still upon the ground, but beginning to cry out querulously like devils who are disappointed that there is no more evil left for them to do.

And then Houghton stepped forward and put a revolver against the liver of the *Tonku* Mat Seleh, who was still looking pleasantly at the body of the man who had made this village a paradise for a person of the *Tonku* Mat Seleh's personal tastes. And the feel of a gun-muzzle is unmistakable. The *Tonku* Mat

Seleh looked upward with the blood draining from his face.

"Before your men can draw a weapon," said Houghton grimly, in very excellent local vernacular, "your liver will be blown to bits. I have a party of Constabulary on the way here. They should arrive in a few hours. Meanwhile you will come and sit in the cage with me, and if anyone shoots a *sumptan* dart at me or the *mem putih*, I will pull it out and stick it into you. Do you understand?"

Ashen-white beneath his brown skin, the *Tonku* Mat Seleh signified through stiff lips that he did.

"And by the way," said Houghton conscientiously, translating the English thought carefully into the vernacular for clarity, "you are under arrest, and anything you say will be used against you."

* * * * *

An hour later, still sitting in the cage, Houghton talked jerkily, with his gun-muzzle a foot from his prisoner's back.

"You see, I was up here looking into those devil-bird rumors, and heard that a party of white people with a white woman among them were coming through. So I sent every man I had to hunt for you and escort you to safety. I sat tight where I was. It was just where a Chinese named Hop Lee had been attacked, and I hoped to hear or see something. But my men missed your party, and Van Hoff turned up leading it. And—er—he's been a rather shady character for some years. It's known that he's smuggled enormous quantities of rubies out of the country. And—er—Taine hasn't too savory a name, either. When I joined your party, I hoped merely to stave off an attack until my servant Ali could bring back my men. So I acted as ignorant as I could, tried to give Taine a chance to help me when I found out he cared for you and might turn honest, and—er—you know the rest."

Betty Hale smiled at him bravely, though she was still very white.

"You did everything that—was necessary," she said shakily. "It will take a long time to thank you—"

Houghton interrupted hastily.

"Please! We'll be a couple of weeks getting back to the coast. Don't start that now! Er—one thing I've forgotten. I don't know how they changed the voice of the birds. I must ask the *Tonku*. Perhaps carving up the bill did it. . . ."

"W-will you sh-shake hands?" asked Betty unsteadily.

There was a row starting down by the gate of the palisade. Quite a sizable row. Guns began to go off, not very alarmingly. Houghton took her hand and held it fast. It seemed to reassure her. She needed something to cling to, with the *Tonku* Mat Seleh still sitting with his back to them in the cage. She held fast.

"They're my men," said Houghton. "Breaking into the village. There won't be much fighting. Everything's quite all right . . . that is," he added awkwardly, "nearly all right."

She looked at him. He fidgeted. Then she smiled a small, frightened smile.

"You see," he said clumsily, "things can't be all right for me until I've had a chance to—er—try to make you like me and—er—propose to you. . . ."

There was quite a respectable din going on down by the village gate. But a steady, deliberate volley rang

(Continued on page 1016)

Higher Mathematicians

By E. M. Camp

I

O Mighty Monarchs of the human mind
You stand apart, and from Olympic heights
Can contemplate this Earth and all the works
Of Man in true perspective. Thus it is
You cast abhorrent eyes on Chaos in
A world gone mad. And those Four Horsemen ride
In every land where tortured souls of men
Cry Havoc! And succumb to black despair.

II

You stand apart, and yet in lighter vein
I now do definitely charge that you
Be held accountable for sundry ills
That so beset us. It was you who sprung
The new Geometry that said goodbye
To Euclid, Newton, and the books that taught
That two times two were four, and apples fell
Because of Gravity. How quaint a thought!

III

And what you did to pi—that schoolday friend
We thought immutable, a changeless law,
The constant ratio of circumference
To fixed diameter. You postulate
That these respective values alter when
The circle rotates. Here divorce is born,
For in the social whirl the wedding ring
Grows larger and slips off at Reno's gates.

IV

A man dropped in the street the other night
Returning from his club. He tried to walk
Home by the shortest route. How should he know
That shortest routes between two given points
Are infinite. He left his Tensors home
And could not calculate the curvatures
Of Homaloidal Space. So down he went—
The victim of some Cosmic paradox.

V

And in the realm of Sport your unseen hand
Has long been felt. We all recall the time
When Snodgrass dropped that immemorial fly
Into the outfield. He misjudged the ball
Through faulty Geodesics and the game
Went ga-ga. It was just the other day
The mighty Ruth struck out when Earnshaw threw
A curve without a tangent or a sine.

VI

Now Eddington has weighed the Universe
And lo! A million million million Suns
Do scarce avail to balance Cosmic Space
In that vast computation. Einstein says
That seven hundred trillion miles would span
The mean diameter of space. Then why
Be startled if your butcher weighs his thumb
Or over-estimates the price of ham?

VII

So am I justified and do contend
Some fault is yours; but I do not impeach
Your usefulness in this mad scheme of things.
Though Time becomes a fourth co-ordinate
Of three dimensioned space, you still may aid.
Delve in your formulæ and calculate
A problem deep as Relativity—
How long a man can live without a job.

Souls Aspace

By JOE W. SKIDMORE

THE mighty, cylindrical space projectile, Plarth No. 1, rocketed silently through the vast void of space; flashed meteor-like at many times the speed of sound. But there are no sounds in the places of no atmosphere.

It was quite different inside the great interplanetary ship. Humans—Earthlings—were merrily celebrating man's first successful flight to Mars. Now speeding home after their astounding adventure.

Space Commander Cromwell was speaking.

"My gallant men, this magnificent flight will soon be a success. All the world—all the universe—is waiting to acclaim us. To think my brave daughter Joane has shared the risk—and the glory of it all. And Navigator Donald Kent, my adopted son. Men, Don and Joane will be married by me before we reach Earth. Think of that! My own Joane and Don the first to wed in interstellar space!"

"Now," continued Commander Cromwell, dramatically, "may we hear from our amazing guest, Maran, the wonderful Martian, who is with us to visit Earth?"

A tall, princely, powerful man rose carefully to his feet. His strangely long and agile hands grasped nicked rings fastened to the table, for in that unmeasured space there was no up or down—no east or west—no gravity except the very slight tendency to a common center created by the space ship. The erudite Martian's caution was timely, for in space a mass would travel forever at the speed of its initial velocity unless it struck a solid.

No one spoke; it was needless. The super-intellect of Maran knew their thoughts. Thoughts—brain vibrations of humans—are the same on all planets.

Martians were a million years ahead of Earthlings in evolution. Their incredible brains had developed powers that were incomprehensible to the daring voyagers.

Maran, the Martian, did not utter words. His thin, sensitive lips remained a fixed but smiling line. Plainier than syllables vibrated his message in the brains of the Earth people. A sort of telepathy. Thoughts have no limitations of vocabulary.

Those of Earth were astounded at the message that came to them from the super-man of Mars. A promise of human hopes and vast interplanetary commerce and relations. Marvels of chemistry, science and spiritual understanding for the younger world.

But to the woman, Joane, came a different message; one of love and adoration. She uttered no word. None but Maran knew of the mad tumult in her breast.

Maran, the Martian, loved her!

"Fear nothing, fairest maid of the universe," vibrated the man of Mars, sensing her trepidation. "You are not for me. We are far apart as the worlds. The gallant youth, Don, is thine. Keep thy lips sealed of my love. No one shall ever know."

Suddenly there came a terrific crash, and instantly the space ship was in a state of executed confusion. A small, wandering meteor had struck the space ship with fearful force! On the floor glowed the vicious piece of metal—only a foot thick, but of unearthly weight, by

reason of some weird chemistry of cosmic rays in the "cold places."

Eyes darted upward to behold a heart-stopping sight. A round, jagged hole through the chromium steel shell of the space ship! The precious oxygen—their man-created atmosphere—was rushing out into the greedy vacuum of space!

"Quick, men! The emergency repairs!" choked Commander Cromwell. Already he was gasping for precious oxygen.

The officers tried desperately to move, but a sudden, deadly lethargy was claiming them. The group sank slowly and chokingly to the floor. All except one.

Maran, the Martian, with a powerful snap of his strong arms propelled himself toward the rounded hole. His body turned gracefully until his legs were pointed toward the opening. Maran's legs hissed horribly for a second as they slipped into the opening, that was still glowing redly from the friction of the meteor.

With a sudden snap the Martian's body was jerked to the armpits by the terrific outside vacuum. The keen, sensitive, emotional brain of Maran was tormented by a supreme agony, but his face gave no indication. Perhaps the master intellect possessed the faculty of changing unendurable pain to ecstasy.

The precious oxygen rushed out but slightly now. The Earthlings began to struggle to their feet as the automatic oxygenating system of the space ship began to function. Then upon their brains registered a most startling message from Maran.

"People of Earth, in a few seconds I will be disintegrated. My legs out in space are already frozen from the cold of absolute zero. When I have gone, weld a patch over the hole and my body." The vibrations were weaker now, but came more swiftly.

"We Martians have the power to transfer our souls to any other living person, but I will do that only with the consent of one of you. One of you can volunteer. Remember, my soul is stronger—more powerful than any of yours. It will dominate the one who offers his body. Quickly—if you wish it!"

Don Kent, brave as Theseus slaying the Minotaur, stepped forward and clasped Joane in his arms.

"May I do it, Joane, dear? His was a brave act. We owe him our lives. I—"

"Yes, Don. You may. Quick!" Joane's voice was a prayer.

Kent stared into the burning, dimming eyes of Maran.

"I am ready, Maran of Mars!"

After a moment Maran's eyes closed, and his large head sagged limply.

Commander Cromwell stared with incredulous wonder at the transformation coming over Kent. Joane clutched her lover's arm as he straightened to a new height. Into Kent's face crept a strange, new light—a shining beacon of a vast understanding. All realized that in some mysterious manner Kent had been suddenly vested with an infinite knowledge.

Commander Cromwell muttered in an awed voice.

"Donald Kent, will you take charge of the Plarth?"

The Ho-Ming Gland

by Malcolm Afford

IT has been the good fortune of this magazine to have published some very remarkable medico-surgical stories and this, we think, will bear comparison with the best of them.

Illustrated by MOREY

TO many who read my account of our amazing adventure on the island of the Glandmen, it will serve as just another illustration of how devious is the path of science and how from the darkness that girds it round, terrible possibilities loom, black and menacing, terrifying those daring enough to wander from the beaten track.

Another, and I fear greater, number of readers, may harbor no such sentiments, labelling the whole as a tissue of preposterous lies, but to those who condemn me, I say this. Take the facts—meagre, garbled—as they appeared in the newspapers and attempt to account for them in any other way. There is only one answer. It is impossible.

The intimate details were far too terrifying and astounding to permit of the facts being published verbatim, and it was mainly due to the newspapers' reticence that something bordering on a world-wide panic was averted.

Doctor Bruce Clovelly, D.D., F.R.C.S., will, of course, need no introduction, for his recent surgical triumphs in glanding have made his name almost a by-word, and it is with Guy Follansbee that we must concern ourselves. Follansbee, as I knew him in my days, was laboratory assistant to the doctor—one of these singularly fortunate individuals who know exactly what they want and how to get it without offending a single soul—inclined to be cynical, yet straight as the proverbial string. He had inherited from his father an insatiable desire for adventure and an income that ran into I forget how many figures. Being a man of somewhat simple philosophy, he utilized the latter to appease the former.

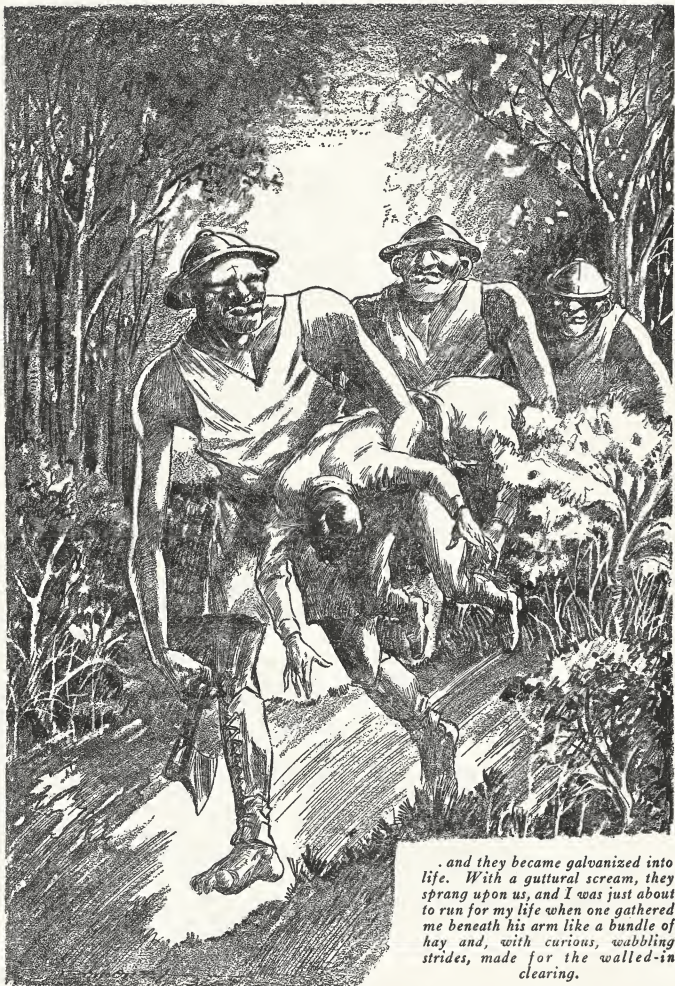
It had taken our combined arguments, practised often and over long periods, to make the doctor even consider such a thing as recreation and I had experienced the hardest task of my life in getting him from his chamber in Gover Street, to which he clung like Diogenes to his wooden cavern. Even after his actual transplanting on his opulent friend's yacht, the *Silver Lady*, he took his enforced holiday as a small boy takes his medicine, but as the illimitable miles of sparkling water grew between our vessel and his stuffy chambers, he turned about to enjoy himself.

We were midway between the Solomons and Santa

Cruz islands when the queer affair began. The morning had been oppressively calm and Follansbee, the doctor and myself had taken the electric launch to examine the rock fauna that flourished so prolifically hereabouts. It was characteristic of the doctor that he could produce, when required, inexhaustible stores of unexpected knowledge on the most out-of-the-way subjects, and though I had never before heard him mention marine growths, here he was explaining them in his most didactic manner to his slightly amused companion. Having little taste in such matters, I was reclining upon the collapsible canvas chair, smoking a cigarette and occasionally dipping my hand into the water, in order to convince myself that it would not emerge dyed blue. Whether, rocked by the gentle motion of the boat, I fell into a semi-doze, or whether the change swept down so quickly that its coming was unnoticed, I cannot say. But I remember that I suddenly jumped to my feet and called my companion's attention to the unpleasant condition of the weather. In the east, the sun flattened to a disc of unhealthy brown, was giving way to a bank of olive-tinted cloud that rushed down with the speed of a stage drop. This opaque canopy lay motionless upon a sea, that was like dirty oil, suddenly changing into a slow immense roll, that sent our ship down a slope and up the opposite side.

Then it was, for no particular reason, that Follansbee expressed an urgent desire to cruise to one of the neighboring islands. The fact that he had trodden every portion of the globe between the fever swamps of Borneo and the peak of Everest had not appeased the *wanderlust* one little bit. It was likely to break out when least expected, as you may judge by this most inopportune of all moments.

We argued, Clovelly and myself, as to the madness of such an expedition, beginning by flatly refusing to accompany our host and ending by seeing the hulk of the *Silver Lady* grow smaller in the distance, while Follansbee twirled the wheel and whistled unmusically. Sitting in the stern, I turned my gaze away from the tall bronzed figure, and scanned the ocean with somber eyes. The inky cloud had thinned out to a thick haze, that crept slowly and relentlessly across the sky. The sun was a ball of molten copper and the undulations of the waters had increased perceptibly. Everywhere a heavy



. and they became galvanized into life. With a guttural scream, they sprang upon us, and I was just about to run for my life when one gathered me beneath his arm like a bundle of hay and, with curious, wabbling strides, made for the walled-in clearing.

pall-like silence hung over the face of nature, fraught with an indescribable sensation of impending danger. Occasionally, faint and far-off, there sounded a humming sob, as of some gigantic beast whipped and tortured.

"Without the slightest intention of being a first-class Jonah," it was Follansbee's slightly sardonic tones, "I should say that we were in for something extra special in the way of dirty weather."

The doctor shrugged his shoulders. "We are too far away from the yacht to run back for it," he said. "What are our chances worth if it catches us in the open sea?"

The explorer spread his hands expressively. "Crepe for our relations—a column in the paper for you and Dick—and, though it may sound somewhat harsh, I was going to say great rejoicing amongst my next of kin."

"And entirely apart from the facetious point of view," I said, "I would like to know what you intend doing."

Follansbee swung the wheel. "The only thing possible," he returned, "we will revert to our original scheme and cut to the nearest island. With a storm like this, it may be on us in five minutes, but on the other hand, it may hang off for five hours. If it does, the Lord help us, for it is certain to bring a typhoon in its wake."

I leaned over the side and glanced at the approaching island. I could make out the details quite clearly. Through the haze I discerned the woods that flanked the shining stretch of silver sand, unsullied by mark or impression, the thick vegetation that grew, tangled and luxurious down to the very water's edge. Here was a tumble down native hut, raising its battered head above the mass of tropic greenery, there a sturdy giant palm, the trunk hidden from view by the enveloping folds of some flaming parasite. As we neared the beach, I saw that the land sloped sharply into rolling hills, cut and serried by deep gullies, whose black forbidding extremities were lost beneath the shadow of the higher mountains.

I turned to our host. "Does it possess a name?" I queried.

He shook his head. "Possibly one of the numerous islands that stud the Polynesia like stars in the Milky Way. They are here to-day and gone to-morrow, thrust up by some volcanic eruption, and then sucked under the seas by a tidal wave or some similar under-sea disturbance."

"I sincerely hope that it remains stable during our occupation," I said. Then the launch grounded on the shore and I jumped out and assisted Follansbee to beach it high and dry. This done, we took our first close look at the island, our enforced landing place.

As we stood on the clean fringe of sand, the hush of the elements was even more apparent. Not a leaf moved in the thick humid heat, not a bird flew or animal moved. It seemed as though all Nature was waiting breathless for the opening of the cataclysm. But for the low rumble of the breakers, we might have trod another planet, some long dead world, and the thick sand, deadening our footsteps, gave us a peculiar disembodied sensation that was unpleasant in the extreme.

Suddenly the doctor, who was leading, uttered an ejaculation of surprise and bending down, retrieved something from the soft sand. He stared at it for a few moments, then handed the article to me. "There," he said, "what do you make of that thing?"

I took the object in my hand and subjected it to a close scrutiny. It was a tiny china cone, some three-quarters of an inch in length, and tapering to a tiny aperture at one end. It did not take long to place it.

"Why," I returned, handing it to Follansbee for examination, "it's a Diamond-Minuet Blood Filter, used for the separation of the corpuscles. Its principal use, however, is to ascertain the existence of tetanus *Bacilli* in the blood."

Dr. Clovelly nodded. "You will find its presence on an apparently uninhabited island rather hard to explain away. You see, I just picked it out of the sand."

Follansbee eyed the filter with interest. "But any of us may have dropped it," he said rather lamely. "You yourself, did you carry one around with you?"

Clovelly smiled. "Your conceptions of the ways of surgery are absolutely appalling, my dear friend. Allow me to inform you that it is a rare sight indeed to see this object outside of the great European laboratories, but to find one here is well-nigh astounding."

The other man shrugged his shoulders. "Then under the circumstances, it will be well worth our while to do a little exploring. That track through the trees seems to suggest unlimited possibilities." He broke off and pointed to a worn path winding its way through the undergrowth.

"At least," remarked the doctor, as we made our way toward it, "we cannot claim to be true Crusoes. Someone has used that path pretty frequently just lately, if we are to judge by its appearance."

"Animals?" I suggested.

"Much too narrow," was the reply. "Then again, the beasts have no object in coming here; there is no water to drink, nothing to eat, and from my experience of animals, they generally shun the sea beach," he glanced at the dry rotted grass. "No, my sonny, that track was made by one thing only—a number of men walking in single file, probably with loads on their backs."

I looked blankly at the waste of matted undergrowth and stunted trees. "But where on earth did they go?" I asked.

"That," was the quiet reply, "is what we are going to find out."

In single file we followed the circuitous path for over a mile, Follansbee leading, the doctor next and I bringing up the rear. We passed through virgin greenery that walled us in on either side, so thick that one seemed to be treading some matted corridor, beneath wild and tangled growth through which the sickly light scarcely penetrated, over young lush leafage that overlay and half disguised the dank rottenness of the older vegetation, through which loathsome creeping things scuttled as we approached, things hideous and detestable to look upon.

The last portion of our journey was terrible. Here a fair sized stream had become bogged by matted reeds and fallen stumps, and was rapidly turning the surrounding country into a poisonous swamp. Clouds of insects hung over the black evil-smelling pools, some huge as wasps, with bodies of every conceivable hue and blend, bred in the fever areas, carrying with them their dread legacy of sting and miasma. The sibilant hum was discernible quite a distance away, and it sounded eerily out of place in that region of silence and decay.

Suddenly with an abruptness that was almost startling, the forest ended abruptly and we saw ahead of us a flat plain. We were just about to step out on to the wide clearing, when Follansbee, who was leading, uttered a cry of amazement, stiffened and stood stock still. He was staring at some scene below him on the plain, and

as we approached he turned, and finger on lip, pointed. Stepping quietly, we drew alongside him and I choked down the gasp that arose in my throat.

We were looking on a wide barren area of land, in the center of which was a cluster of iron buildings. That they were tenanted was obvious by the thin trail of smoke that curled its way from the chimneys. One edifice, slightly isolated from the rest, was surrounded by a high wooden stockade, pierced at intervals by loopholes.

As we watched, thunderstruck by our discovery, around one side of the stockade came a troupe of figures. There seemed no doubt that they were men, but such men as I have never before set eyes upon. They were of enormous stature, most of them being over eight feet in height. They moved with a peculiar lumbering gait, that was vaguely suggestive of something that I could not place. Their arms, swinging at their sides, seemed absurdly out of proportion to their bodies and the great hands clasped tightly upon objects that, at the distance, looked like axes.

They wore a kind of khaki shirt and breeches, with leather leggings that reached from instep to knee. A sun helmet took the place of a hat and as they turned away from us, I noticed a peculiar irregular blotch upon the back of the shirt. At first I took this to be some personal damage, but a further glance showed me that each one wore a similar adornment. At the distance, however, it was impossible to distinguish the outline.

"By Gad," exclaimed Follansbee, as he unsling his glasses. "We seem to have stumbled on a modern Brobdingnag. Thank heaven for that storm."

The doctor was already examining the monsters, so after a scrutiny the explorer passed his glasses to me. I adjusted the powerful lens to my sight, and the approaching creatures leapt into my field of vision.

If, at a distance, these men looked unprepossessing, they seemed doubly so at close quarters. The lens picked out every detail with horrifying clearness, the broad, hunched shoulders, the long muscular arms, carrying axes as their weapons, the slouching movement, caused, I now perceived, by the curious feet and girdled legs. As one stopped to converse with his neighbor, he turned and the ragged blotch on his shirt took definite shape. I stared again, thinking that my eyes were playing me tricks.

The shape of the blotch was that of a five-clawed dragon, reared in the act of striking. It was either stamped on in color or sewn on in black cloth.

But it was the features that drew the eyes and held it in sheer horror, so hideously repulsive were they. The ugly head, with its wide slobbering mouth, the wicked red eyes and the flat coarse nostrils inspired one with a thrill, in which disgust and loathing were prevalent. The low receding forehead, the forward position of the ears, showed that, were they humans, they were of a very low scale of civilization.

"My God!" I heard Clovelly gasp. "Are they man or beast?"

I opened my mouth to answer, when from behind there came a rustle of disturbed undergrowth. I swung round, but there was nothing to account for the sound, when acting on some unknown impulse, I glanced up into the tangle of branches above. A cry of horror burst from my lips, for there above us, silent and motionless as the surrounding forest, crouched four of those hideous creatures that we had been watching. How long they had been there, their bloodshot eyes contemplating our

movements, will never be known, for as I sighted them, they became galvanized into life. With a guttural scream, they sprang upon us, and I was just about to run for my life, when one gathered me beneath his arm like a bundle of hay, and with curious wabbling strides, made for the walled-in clearing.

CHAPTER II

IN an incredibly short space of time, we had reached the high partition. Here the creature paused and, shouting something in the guttural tongue, pointed to the gate, then to his companions in the rear. In my awkward position, I was unable to glimpse the one to whom he spoke, but it was obviously the guardian of the portal, for even as I screwed my neck to the breaking point, the obstacle swung back and we passed through.

I judged by the stamp of feet behind, that my colleagues were likewise captives and by the sounds of struggle, that they were not submitting as tamely as I. Perhaps I was unfortunate in possessing a particularly irascible gaoior, for my puny efforts at escape had resulted in nothing more than a cuff across the face, that nearly took my head off. Maybe it was just a gentle reminder that he would stand no nonsense, but it served to quiet me beyond further resistance.

We traversed a slight dip and breasting the slope, came to the main residence. It was much more pretentious than the out-buildings, possessing as it did, neatly laid paths and flower beds, though the blooms could not have been called healthy. Across the roof were looped slender wires, standing clear against the coppery sky, terminating in twin aerial poles. It strengthened my conviction that we had reached the headquarters of this amazing island.

Four wooden steps led us into a wide hallway, carpeted with rush mats, that strewed the floor at irregular intervals. A number of doors, dimly discernible in the uncertain light, opened off this passage, whose extremity was lost in the prevailing gloom.

It was here that my guard at last set me down and turning, signed to his companions to do likewise. I smoothed my rumpled apparel into place and turning beheld Follansbee, as imperturbable as ever, in the act of lighting a cigarette. Clovelly seemed still stunned with amazement, and he looked at me with eyes that hinted a thousand questions.

Before he had time to utter a word, one of the creatures wheeled around and disappeared into one of the rooms. As he opened the door, I became aware of a peculiar odor—sweet, sickly—that emanated from behind it. For just one second it eluded me, then as it grew stronger, I recognized it immediately—Chloroform.

I glanced at Clovelly, and a wry smile curved my lips. He was sniffing the air like a thoroughbred, his professional instincts aroused. I noticed the slender white fingers quiver like the antennae of some giant insect, itching for the scalpel or the forceps.

Seeing my interest, he opened his mouth to speak, but what he meant to say will never be known. Suddenly, tearing jaggedly across the stillness, there came a horrifying shriek of some poor soul in mortal agony. Higher and higher it rose, in shrill cadence, then at the highest note it ceased abruptly, to die away in a gurgling mumble, then silence—thick, enveloping, sinister.

I am not easily frightened, but an icy horror gripped

my heart. Clovelly was white to the lips and even Follansbee was shaken out of his customary equanimity. Our huge guardians seemed absolutely unmoved by the horrid experience, not an emotion was discernible upon their animal countenances, they were as devoid of expression as a rubber doll.

At that moment the door re-opened and our guide appeared. Taking advantage of the diversion, I crossed to the half-open door and essayed to peep inside. I was almost there, when one of the creatures sprang forward with an angry grunt, grasped my arm with such force that I cried out. Our huge guide turned quickly and looking questioningly at his subordinate (as I took the other to be) fired a volley of unintelligible jargon at him. Suddenly the creature released me as though I had become red-hot, and a look of something akin to deference crossed the face. But I hardly noticed this, for my head was buzzing with a new discovery. The opening and shutting of the door had afforded me a momentary glimpse beyond—a fleeting vision of a modern operating theatre, the tables, instruments and assistants showing spotlessly clean in the bright artificial light.

One of the creatures crossed to a portion of the wall opposite the door and pressing on it, moved his hands in a curious circular manner. The reason for this was plainly obvious the next moment, for there came the sound of a metallic click and a section of the wall swung back to reveal a door, set flush in the wood-work. With more haste than ceremony, we were thrust through this door, it clicked behind us—and for the first time since our capture, we were left on our own.

But we had no desire to converse. We were struck silent by the extraordinary appearance of the singular apartment in which we found ourselves. I can close my eyes now, and recall every feature of that bizarre apartment, as though it were yesterday, so indelibly are the details engraven on my mind.

It was circular in shape and lined with books from floor to ceiling, the reds and golds of the bindings reflecting the light from the mosaic shaded lamp, that hung in the centre of the room. Beneath this was a huge bowl of roses, the colors shading from one extreme to the other. Some there were so dark as to appear almost black, others vivid scarlet and flaming yellow, and others so delicately tinted as to truly rival the shy blush of the maiden. They filled the room with a heavy exotic perfume and as I gazed, one of the flowers, full-blown in that super-heated atmosphere, burst slowly and the creamy petals drifted slowly down—one by one, light as thistledown—upon the rich, red carpet on the floor.

Behind this great bouquet was a square block of perfectly grained black marble, flanked on either side by fantastically wrought incense burners. Poised on the marble base was a five-clawed dragon, in the act of striking, carved from solid ivory, with the meticulous care that characterizes the Oriental artist. So cleverly was it wrought that the object seemed to possess a personality that was both fascinating and repellent. It was wickedly beautiful in its own way, but it recalled to me similar emotions, when I had first handled a Renaissance stiletto.

Directly opposite the carving, the books ended abruptly, to recommence at an interval of about three feet wide. Across the aperture was hung a heavy plush

curtain, crimson with golden edging, and worked with poppies and roses. It fell in heavy folds that hung motionless in the still air, exuding an influence of the obscene and the unmentionable.

I turned and something caused me to rub my eyes. Of the door we had entered, there was no sign. Save for the curtained aperture, the book-lined walls continued in an unbroken line around the room. Hardly able to believe the evidence of my eyes, I walked up and ran my fingers over them. My hand encountered bindings—red—gold—that winked mockingly in the vari-colored radiance.

The choice of books in themselves were remarkable. The titles covered a wide range of the transcendental and the meta-physical, and all manner of works on the processes and oddities of the human thought seemed to be assembled there. They ranged from the days of black magic to the physico-therapeutics of the modern analytical school. There were volumes by Zaarsmarn and Jung, together with other foreign scientists on the morbid phenomena of the brain.

Interested in spite of myself, I took down one book in German, a tongue with which I am fairly conversant, but after a hurried glance returned it hastily to its position. It was a study of *Dementia Praecox* and its plates of naked German lunatics almost turned my stomach, quite unused as I was to the German scientific treatment of the more repellent disorders of life.

At the end of the highest row were a number of volumes, touching on the influence of suggestion on the human mind. They ranged from the early investigations of Bertrand and of James Braid, to the more recent studies of auto-suggestion by Coué and other modern French writers in this line of thought.

"By Jove, Follansbee," the doctor's softly spoken remark brought me round like a shot. "You wanted adventure, you craved something different—well, you've got it, with a vengeance."

The big explorer shrugged his shoulders. "There are more things in heaven and earth, Horatio—" he quoted. "We seem to have stumbled fairly into the latest six shilling sensationalism." He glanced at his wrist watch. "By the Lord Harry, it's almost ten o'clock. I could tackle the proverbial leg of an iron pot, I'm that peckish. I sincerely hope someone puts in an appearance shortly." He broke off and glanced round the room. "Who owns this musical comedy apartment, anyway?"

The doctor paced the room, his hands locked behind his back. "Do you know," he said, as he drew abreast of us, "I rather fancy that we are on the eve of a momentous discovery. Taking the curious events in their sequence, we have the finding of the blood filter, the well-worn path through the woods of an apparently uninhabited island, and our discovery of the giant creatures that eventually captured us. And to the fact that there is installed here something in the form of an operating theatre—so much is plain by the use of chloroform—and we are left to arrive at only one conclusion."

"Why?" I broke in. "Behind that door from whence the ether fumes emanated, is an operating theatre, up-to-date and modern in every respect. Though I just caught a glimpse as the door opened, I recognized the Newington Naptha flares, and they have yet to be installed in the Prince's Hospital. Evidently, whoever uses the room insists on every known appliance."

Clovelly nodded absently. "Exactly. It bears out my theory that before we leave this island, we are going to learn that science, in the hands of the unscrupulous, can do quite as much harm as it can do good." He turned to me. "You, Huxley, with your medical knowledge, can you not conjecture what is taking place here?"

I shook my head and colored slightly. "I can perceive nothing more than is apparent to all of us. In some manner, the ruler or owner of this island has possessed himself of some secret formula for the making of super-men. This he does by some delicate operation, for the elaborately equipped operating room and the modern blood filter are both necessary in the course of the metamorphosis."

"And have you no idea of how this transformation is effected?" said Clovelly.

"Not the slightest, but I know enough to be aware that he has a tremendous power for good or ill. Just how he intends to use it is a matter for conjecture."

The doctor turned to Follansbee, but that gentleman was gazing intently at the curtained-off aperture. He closed his eyes tight and shook his head. "Either I'm going clean blind batty, or my eyes have developed the shakes, but I'm certain that I saw that curtain move. I was just standing here when— Look, there now, do you see it?" he broke off abruptly, and pointed a finger at the gently moving cloth.

We stared as if fascinated at the slowly writhing folds, as it twisted and coiled itself into thick pleats, to belly out like a sail in the sea breeze and then resolve into tiny undulations that rippled across the crimson surface. But the culmination came when from behind it there arose a peculiar coughing grunt, followed by a gasp of somebody or something struggling for breath.

"What fresh devilry is this?" muttered the explorer uneasily. He raised his voice. "Anyone there?" he called.

There was no answer, but I for one was hardly surprised. It was not enough for Follansbee, though. He squared his broad shoulders and clenched his fists. "I say," he called again, "is anybody behind that curtain?"

But the silence of the weird circular chamber was unbroken. The curtains were motionless now. Another rose bloom, a flower almost dead black, fell to pieces. Almost mechanically, I counted the falling petals—one—two—three—

The big watcher paused just one second, then with chin jutting ominously, he strode toward the aperture. I could not but admire the stark courage of the man, seeking unarmed a danger increased a thousand fold because of its indefinable quality. Though my heart beat suspiciously fast, I stepped up beside him and we were almost at the curtain when an unlooked for contingency occurred.

"I would advise you, gentlemen, to leave things that do not concern you, untouched. The consequences of spying, are sometimes painful in the extreme."

The voice was suave and modulated, but had it possessed the quality of a revolver shot, it could not have startled us more. We whirled as if stung and gazed with wide eyes at the author.

He was standing a little in rear of Dr. Clovelly, and his manner of entry was a matter for conjecture. Certainly none of us had heard him, but as he was standing where I presumed the secret entrance to be situated, I judged that he had entered through it.

It needed only a second's scrutiny to place the man as an Oriental, but he was clothed in a neat-fitting grey suit and shod with smart, square-toed patent shoes. His skin was smooth and butter-yellow and a pair of large tortoise-shell glasses bridged his nose, the huge pebbles making the eyes absurdly out of proportion with the rest of the countenance. He wore his hair long and brushed back over a high intellectual forehead. He spoke with just the slightest trace of accent, a metallic enunciation of the consonant "r" a trait which characterises even the most educated of Chinamen.

"I trust, gentlemen, that you will excuse the somewhat rough handling. Strangers are not welcome on the Island of Ho-Ming, especially white strangers."

As the insolent voice ceased, a thin, ironical smile curved the thin lips, revealing two rows of white teeth. But there was no humor in the narrow lidded, purple black eyes, for in their inky depths there lurked the cruel passionless look of one who has gazed too long on agony and suffering to feel the sorrow and pity of it all. They reminded one of the loathsome orbs of a hooded cobra.

Follansbee was first to recover from his surprise. "If we are not asking too much," he asked quietly, "may I enquire just where we are and what relation you bear to all this?" he waved his hand around the bizarre apartment.

With all the slow dignity of his race, the Chinaman raised his hand. "I will explain in my own time," he said, blandly. "It is I who give orders now, and you will obey—" he smiled at the angry Follansbee—"No? Then steps will be taken to make you obey. We of Hankow have many methods of curing obstinacy."

Dr. Clovelly started forward. "We are British subjects, he cried. "If you harm us in any manner, the government will blow your island to glory, and you will end your career with a rope around your neck."

The Chinaman bowed and spread his hands. "If it eases you to entertain such delusions, Dr. Clovelly, by all means do so. But you have evidently forgotten the necessity of communicating your unfortunate position to your government."

"How do you know my name?"

"I know many things, for I am the chosen ruler of the People of the Ming Dragon. You have arrived at a most opportune moment—" the Oriental broke off abruptly—"Gentlemen, I have a proposition to put before you."

He walked over to the black marble dais and seated himself thereon. For a moment he sat thus, seeming deep in thought, then he raised his eyes and glanced at each of us in turn.

"Now," he began, "I want you to hold no delusions as to your position on this island. You are my prisoners, for me to do with you as I wish. But you are all men who have achieved some fame in your respective professions, and I have no desire to rob the world of your talents. So—I offer this truce."

He turned in his seat and directed a long slender finger at the doctor. "I know you, Clovelly, as one of the greatest of living authorities on the gland-grafting treatment. Your studies with Steinbach in Vienna, when you unearthed the 'Cod Bone' method, proved to me that you had the business of glanding and rejuvenation at your finger tips. Mr. James Huxley, your assistant, needs no introduction to me, nor does your friend, Mr. Follansbee.

"You have, no doubt, been rightfully bewildered over the strange creatures that inhabit this place, hesitating to categorise them as either man or beast. Let me set your mind at rest and inform you that they are neither and yet both. That is to say, they possess the characteristics both animal and human, because they are of a scale of civilization that is intermediate. They eat, walk, talk and work, possess the strength of ten men, live to an almost prodigious age, and lastly, possess a certain immunity from sickness and disease. They are my Gland Men and are the latest triumph of modern science."

The monotonous tones ceased and the speaker, taking from his pocket an inlaid case, extracted a cigarette. I blinked my eyes and breathed hard, thoroughly convinced that I was mad or dreaming. The colored shade stained the floor with its dancing hues, the rose-scented air seemed charged with the dominant personality of the owner. The scratch of a match recalled me and I saw the smoke curl through the nostrils of the Oriental, as he laid back and surveyed us with his narrow oblique eyes the lids lowered to mere slits.

"Now, gentlemen, behind this is a story of patience and attention to detail that can only be achieved by one in search of an ideal. Up on the slopes of the White Headed Mountain, on the western border of Tibet, there stands a Lamasery known as the Brothers of the Golden Khan. It is the holy of holies, this desolate edifice, for in its sacred precincts there dwells the Most Illustrious Deity, the Grand Lama Dalai. He is a beautiful youth, with skin as soft as a maiden's and limbs muscular and symmetrical. Though he has attained the distinguished age of two hundred years, he is still of the appearance of an unsullied youth, a fit spectacle for the thousands of devout Chinamen that yearly visited the shrine, leaving it richer by gifts of money.

"Now, my father entered that Lamasery as a youth, not because of any religious urgings, but because he regarded the permanent youth of their Deity to be nothing more than a gigantic hoax to attract money and notoriety to their shrine. He knew that the priests must possess some miraculous secret of preserving eternal youth and he meant to obtain that formula, cost what it may. That the task was no insecure was obvious, but he had the patience and perseverance that only one of the East can inherit!

"For forty long years, my father lived with the priests, and he was just on the point of achieving his life's desire, when he was betrayed by a treacherous servant. He was caught and after a year of continuous torture eventually made his escape. He fled to Hankow, where I was studying surgery and delivered into my hands the sacred tomes containing the great secret formula. Further information I could not receive, for amongst other things, the Lama priests had cut out my father's tongue from his mouth, thus making him dumb for ever.

"Then followed a reign of terror for us. My father and I fled from place to place, but nowhere could we escape the watchful eye of the vengeful priests, who by that time, had discovered the missing volumes. At length, I evolved a plan by which we would be free from further persecution. I personally sought an interview with the Great Emperor Dragon, the great Shem Sing and laid my plans before him. He was delighted with the idea, and not only gave orders that

I should be protected, but also agreed to finance the scheme I had in view.

One of the chapters in the Book of the Brethren dealt extensively with a simple matter for the grafting of animal glands in the human body, thus giving the boon of youth to the aged. The gland taken from a young animal, preferably the goat or the monkey, is charged with the youthful serum of its owner. When this portion is grafted into the aged human body, it very naturally takes the place of the old worn out gland that was removed and functions in like manner. Thus the serum imparts the youth that was lost and while the patient does not change so very much outwardly, the internal system is renewed and rejuvenated.

"Now, if the glands of a tiny monkey gave that change to the body, what would take place were we to transplant the organs of a giant anthropoid ape? Such was the scheme that occurred to me. Luckily I was possessed of twelve sisters, and each, in turn, gave their lives for science. Still we were unsuccessful, the creatures of our experiments being things hideous and fearful to look upon, that were killed as soon as tested. Then our faithful servants professed themselves willing to give their lives. Three there were, and by a strange freak of fate, it was the last attempt that was successful. We achieved a huge beast, such as you see here to-day, and it was this creature that we took to the Emperor as proof of our good faith. Then we outlined to him our momentous scheme.

"What a great thing it would be for our decadent empire could we but manufacture an army of these Gland Men. They would be immune from hurts and outlive the strongest of soldiers. Again, they would ask for nothing in return, fighting but to appease their brutal instincts. With ten thousand such as these, we could wipe the entire white race from the earth and restore China to her rightful position as mistress of the world. The magnificence of the scheme fairly dazzled me, such prodigious possibilities did it possess.

"Here you see the great scheme in embryo. Thanks to the magnificent generosity of the emperor, we have unlimited facilities for the great scheme in progress here."

Once more he paused, and the hard black eyes, alight with the fire of fanaticism, gleamed and sparkled like wet anthracite coal. He leaned forward and waved a thin yellow hand in our direction.

"White men," he said. "Here is an undoubted truth. In a decade this colony will be a serious menace to your white civilization—and in fifty years we will sweep you off the earth. China will return to her rightful position, and the world will bow down to the despised 'chow'."

"Really," Follansbee's coolness was superb. "And if we whites are considered such a nonentity, why expound to such a length to us?"

The light died out of the Oriental's countenance and the eyes narrowed perceptibly. He inhaled deeply of his cigarette, and, as the smoke curled through the flat nostrils, the pungent vapor hung in wisps on the heavily scented air.

"My Gland Men," he murmured, so softly that the purring voice was scarcely heard, "lack but two things. One—the method of human speech, and the other—of paramount importance—is their sex-less state. It is upon you gentlemen that I rely for the rectification of those surgical errors."

Dr. Clovelly took a step forward. "And if we refuse?"

The Oriental shrugged his shoulders. "I have just attended two operations this morning," he replied meaningly, "and in the event of your refusal, I will attend three to-morrow morning."

"Do you mean that you operate here?"

"Certainly, why not? We have every facility of modern science, and a laboratory that is the last word in the up-to-date."

"But—but," Dr. Clovelly babbled amazedly. "Your supplies—and chemicals—"

Ho-Ming gave an upward gesture of his hands. "Wireless," he explained. "A call to our base will bring a ship load of supplies within a few days. That is what has cut that path through the undergrowth."

"But your—er—patients do not recover immediately. You must have a hospital, or something of the kind?"

"If you consent to my proposition, Dr. Clovelly, I will make arrangements for you to be shown over my island as soon as it is possible."

Clovelly spread his hands helplessly. "Under the circumstances," he acquiesced, "we can do nothing but submit. But you must promise that we meet with no treachery."

The Chinaman inclined his head. "Have no fear of that," he assured us. "And now I shall show you around. You shall see that this is no wild dream of mine. It has taken years to accumulate the knowledge and effects, but it is all to the one purpose."

With his quick, silent walk, he crossed over to the crimson curtain and pausing before it, spoke for some moments in the pure liquid Ho Man dialect. From inside there came a rustle of silken garments and suddenly, as we listened, there arose again that evil, voiceless murmuring that we had heard on the previous occasion. Ho-Ming turned to us and waved a hand in the direction of the curtained aperture.

"My Illustrious Father—the Great Bald One—the learned Wong K'tai, who first wrested the priceless formula from the Lama pigs, and to whose patience and saintly perseverance, this island owes its existence."

So that was the solution of the peculiar sounds, and I was about to pace forward, when Ho-Ming, with a peculiar smile held out a restraining arm. He then picked up a slim ivory wand, and with a quick movement, stabbed it at the curtains. Immediately there came a sizz and a bright flash as something shot through the air, but so quick—so unexpected was the whole action that I did not have time to see what the object was. The next moment the Chinaman, with a bland smile, moved forward and held aside the curtains.

The room into which we looked could not have been more than six feet square, but screened on all sides as it was by rich hangings, it gave the illusion of depths that was very cleverly carried out. The black velvet hangings were worked with a bewildering array of birds and flowers, in colors both rare and wonderful. Scarlet parrots, blue peacocks were entwined with crimson poppies and roses of every shade and hue. Gaudy though it undoubtedly was, there was nothing in it to offend the eye, for the colors were blended with the skill of an expert.

In the centre of the room, in a huge chair that almost enveloped the slight form, sat the oldest Chinaman I have ever set eyes on. He was thin to emaciation and the rich purple robe he wore hung in folds

about his skinny frame. His head, bowed slightly with the weight of years, was as bald as an egg and the long beard that hung from his chin was white as the driven snow. The face was seamed with a thousand wrinkles and only the beady eyes, sunk in the lined countenance, gave hint of vitality. He sat motionless, like some grotesque idol, a fit parent to this place of sinister secrets.

Ho-Ming entered the room and pausing before the chair, fell upon his knees. For some moments he knelt thus, then raising his head, addressed the still form in the chair. For a moment, there was a silence, then slowly, like one in a trance, one claw-like hand, yellow as ivory, was raised in salute. For a second it remained poised, then, as though its owner lacked strength to hold it in place, it fell limply back upon the chair. Ho Ming rose to his feet.

"The Great One salutes you, and wishes you well. Gentlemen, you may consider yourselves doubly honored."

He crossed the room again and as he made his way through the doorway, the curtain dropped behind him. Synonymous with it came the swish and the flash, and the Oriental, with a quick movement touched a portion of the woodwork. Immediately the object came to rest and for the first time we saw it. It was a blade, some six inches wide and the width of the doorway, a blade razor edged and weighted at the top. It ran down between the door posts on a concealed wire, very much on the principle of a guillotine, at an almost incredible speed. The Oriental released it, and it disappeared into a slot in the floor.

"Quite Chinese," he purred. "Borrowed from the palaces of the emperors. By the way," he turned to Follansbee, "it was as well that I arrived when I did, this morning, for had you stepped across the threshold you would have been cleft in half." He walked to the book-lined wall and moved his hands in the circular manner we had noticed before. With a click of concealed machinery, the section swung back, and we filed into the dimly lit passage. "Now," our guide cautioned us, "keep close to me and offer no resistance, no matter what happens."

CHAPTER III

THE contrast between the brightly lit room and the semi-darkness of the passage was so great, that, for some moments, I could perceive nothing, far less distinguish any objects. The luminous dial of my watch told me that it was just past noon and I could not help reflecting that we had certainly experienced "one crowded hour!" It seemed incredible that all our strange adventures had been compassed in such a short space of time; already we seemed to have spent months on the island, and England and Prince Alfred's Hospital seemed very far away.

Gradually, as my eyes became accustomed to the light, I made out the various doors leading from the strange apartment. The Oriental, Ho Ming, took the lead and we others trailed behind. At the end of the passage we paused before a door.

"This," our guide explained, with a gesture, "is the laboratory. It is here that serum is compounded, according to the formula of the Brethren. Its properties you will learn for yourselves, when you take over your duties."

He threw open the door and we surveyed a long low room, with wooden benches running the entire length. Upon these was placed a heterogeneous collection of scientific instruments—microscopes, galvanometers and centrifuges. Everything was scrupulously clean and three assistants, in spotless overalls, hovered silently about the room. Ho-Ming gave a sharp order, and immediately one of the men crossed to the bench, and procured therefrom a test-tube half full of some dirty brown liquid. This he placed in his master's hand and retired.

"This is an inoculation serum," explained the Chinaman. "You must first understand that the ape-glands are incredibly strong and were they left to themselves, they would ultimately reduce their owner to a state of bestial idiocy. To prevent this, an injection of this serum is necessary, at least once a week. It not only counteracts the strength of the gland, but also takes the place of a stimulant. A very simple formula." He returned the tube to its stand as he spoke. "I discovered it something like two years ago."

He closed the door and we retraced our steps along the passage. "It is the serum that eats away portions of the larynx," he was explaining to the doctor, "thus destroying the power of human speech. We have tried cutting through the windpipe into the cricoid cartilage, and the trachea. The effect of the laryngotomy—" and he rambled away into the realms of surgery, with Clovelly listening entranced and delighted.

I took advantage of his immersion to drop back with Follansbee. "What do you think of it all, anyway?" I muttered.

He surveyed me for a moment, his grey eyes lighted humorously. "Two things strike me with perturbing force. One is that our Oriental friend is a loyal fanatic and means every word he says. The other is that we are in the very devil of a hole and I don't mind telling you, young man, that just at present, I fail to see the tiniest loophole of escape.

"Do you think the man is mad?" I murmured, having digested the somewhat disturbing statement of the other.

Follansbee shrugged his shoulders. "He may be," he assented. "There is no doubt that he is clever—and cleverness and insanity often go hand in hand."

I glanced to where the two were holding excited converse. "I do believe that Dr. Clovelly is really enjoying himself," I remarked softly. "He's hanging on to the Chinaman's words as though they were pearls of great price."

The other man smiled, a trifle grimly. "I think that the doctor will be quite safe," he returned. "It's little we that's worrying this child. You see, we may be guests of honor for as long as the childish vanity of our host continues, but one day, they'll run short of raw material, and then—" he made an expressive gesture.

I was just about to reply, when the Chinaman paused with his hand on another door. He regarded us suspiciously as we walked up together and his voice was as sweet as honey as he observed, "Do not linger behind, my friends." He glanced over his shoulder as he spoke. "There are many strange things in the abode of Ho Ming. Fingers that claw and grasp, hands that tear and break. It is very foolish to stray behind."

With that he pushed the door and as it swung open, we saw a well-lighted apartment, with twin rows of beds running along either side. Around two of the

nearest, white screens were placed and from behind one of these a faint moaning emanated. The air was charged with the acrid tang of carbolic and, as before, everything spoke of scrupulous attention to detail.

"My hospital," it was explained. "My patients come here from the operating table and from here they emerge to the outbuildings, to do their allotted share among their fellows. There is no intervening period, such as we humans know as convalescence. A week in hospital is long enough for the newly grafted gland to function. Then sunlight, fresh air and hard work do the rest. It is amazingly simple."

"But," I interpolated, "where do you get your material to work on? It must come rather hard to find men willing to sacrifice themselves to this sort of Roman holiday."

"Convicts from the state prisons furnish us with much of our supply," was the cold reply. "Murderers, servants and occasionally a few are pressed into service by my assistants, who form a modern equivalent to your old-time press gang."

I grinned a trifle rudely. "Bang goes your dream of world revolution," I returned, "if that is how you progress. After weeding your prisons clean of undesirable characters, the *magnum opus* will languish and finally die of insufficient means of support."

Ho-Ming turned his unfathomable black eyes upon me. "Presumptuous fool" he said, coldly. "China now possesses an army of six thousand men, drilled and perfect in the art of war. As soon as circumstances will allow, sufficient serum will be dispatched and under the treatment of my assistants, every soldier will become a Glandman. After that, every man who enters the army will be likewise glanded, and in time we shall possess an entire army of these supermen."

I raised no more questions, for if the Oriental was insane, there was assuredly method in his madness. In fact, the gigantic scheme was too complete, and for the first time, the true meaning of this man's insane dream chilled me with its appalling possibilities. The doctor's voice broke in on my reflections.

"And are all your operations successful?" he asked. "In such a delicate business as this, one would think that the failures out-weighed the successes."

Ho-Ming looked at the speaker, his eyes alight with a peculiar gleam. "Yes," he said slowly. "We do have failures, in spite of our precautions. Before you see them, I warn you—they are not pretty to look upon."

He led the way through the side door and we found ourselves once more in the daylight. The weather had changed completely since our sojourn inside. The sky, brassy before, was now almost clear, the hard blue sullied by a thick bank of black clouds that spread themselves like some ebon canopy across the eastern sky. Little puffs of wind stirred the dust and dried leaves at our feet, whirling them high into the blue. The atmosphere was thick and heavy, so heavy indeed, that some difficulty was experienced in breathing, and the sun poured down with a fierce heat that was almost unbearable. The silence was broken intermittently by a low sibilant hum.

Follansbee glanced curiously around him. "It's coming," he said, appreciatively. "It's coming, and by Heaven, I pity this place if it strikes it."

We skirted the main building and passed through the high wooden stockade till we reached the outbuild-

ings. Some little way further on, we could perceive a number of the queer inhabitants engaged in erecting a new structure. They swung the huge tree-trunks as though they were light sticks, and in an amazingly short time, the central framework was raised.

We passed a long building, constructed of rough hewn timbers, containing a number of small cubicles. Each separate room had its neatly folded mattress and shining eating utensils. The place contained no comforts whatever, just the bare necessities of living, and was obviously the domestic quarters of the strange beings that Ho Ming called his Gland Men.

A peculiar smell was predominant here, increasing in strength as we made our way onward. Everyone is familiar with the loathsome animal smell, that is prevalent wherever beasts are incarcerated. It emanated from a tiny hillock, built over an underground cellar. A gate led us down about a dozen steps cut in the earth and brought us up before a massive iron door, with a barred grating set in the top. The snapping and snarling of animals rose clearly to our ears, and the words of the Oriental, "They are not good to look upon" took on fresh significance.

The Chinaman, who was in the lead, stepped forward and sliding back the grating, motioned me up. I peered in, scarcely knowing what to expect, but hardly had I taken one brief glimpse, when I recoiled with a gasp of horror. Even Dante, on his journey through the innermost Hells, could scarcely have viewed such horrible creatures as haunted that underground pit.

There must have been over a dozen of them—loathsome, terrible—some twisted beyond any semblance of recognition, others with stunted bodies and bloated appendages growing on various portions of their anatomy. They stood silent as I looked at them, with their wild, red, blood-shot eyes, gasticulating with their crooked shrunken limbs. But the crowning horror was the undeniable fact, that everyone of these things had been men, "even as you and I," loving, hating, breathing.

As I stumbled up the stairs, sick with horror, I was joined by the Oriental, who stood watching me with a sardonic smile on his lips. I did not speak, but stood there, drinking in the thick air in thirsty gulps. And then suddenly it happened.

It began by the sunlight fading, and glancing up, I saw that the monstrous black cloud had overshadowed almost all the sky, leaving only a clear portion over the sea, that glowed eerily with an uncanny elfin radiance. The low intermittent humming had arisen in cadence and was coming nearer at every second. A patter of feet made me swing around and there, his face white with terror, was one of the overalled assistants. He stepped up to the Chinaman, and poured forth a string of incoherent language, that for a moment eluded even his countryman. Then I saw Ho Ming's face turn a sickly green, his eyes protruded and he backed back a question into the other's face, and I distinctly heard the name Wong K'tai. Then without a word, Ho Ming turned on his heel, and side by side, the two raced for the main building as fast as they could move, leaving me standing wide-eyed with amazement.

A moment later I was joined by my companions, and to them I explained the sudden departure of the Chinaman. As I spoke, several big drops of rain commenced to fall, and Dr. Clovelly glanced anxiously at the sky. "Hullo!" he ejaculated. "Here's that storm that

you promised us, Follansbee. It is going to strike here."

But that gentleman jumped to his feet as though he had been stung. "Storm be damned," he exclaimed. "That 'storm' is a number one sized typhoon and it is heading this way. I give it five seconds to strike the island."

The terrific upheaval of Nature lasted for three hours, and to us adventurers, crouched in the groaning swaying forest, it was the final denouement of our astounding adventures on the Island of the Gland Men. Towards evening the hurricane dropped, but the rain poured down with unbridled fury, sweeping and lashing the vegetation before it. Such a deluge it is almost impossible to describe. Rather it was as though the skies had opened and the seven seas poured their waters through the gap. Even in the thick of the matted vegetation, we were drenched to the skin, and it was almost dark when we eventually crawled forth from our shelter and took our last look at the island. The down-pour had abated somewhat, but it still swept in our faces with the sting of a whip-lash, and at length, wet, half blinded and weighed down by the weight of our sodden garments, we gazed at what had once been the realization of a fanatic's dream.

Such a scene of destruction and chaos beggars description. The sturdy buildings had been swept away like match boxes before a summer breeze. The heaps of wood and iron were still faintly smouldering, and when I remembered the volatile chemicals that were ranged along the shelves I perceived that combustion must have wrecked quite as many of the edifices as did the howling typhoon.

There was the half-erected framework, now splintered and scattered. There too, were the poor dumb beasts that had once been men. The cataclysm had burst upon them, before their bestial minds had time to realize its significance. The rain swept mercilessly down on the inanimate hairy bodies, as though gloating in its power over mere mortals.

The high stockade was, by some miracle, still standing in places. In others it gaped open, showing the destruction within the walls. Here the bodies were piled, corpses torn, scratched and bitten, telling of the panic that must have enveloped the community, as it fought for freedom. I wondered if any of the hideous denizens of the underground pit had escaped, but a glance assured me. The ruins of the main building were piled many feet high over the vault of horror.

Of Ho Ming there was no sign. It was impossible that he had lived through the chaos that had enveloped the island, but it was hardly probable that everyone was dead. We, to be sure, only owed our lives to our sheltered position, but there may have been others.

The island must have been situated in the very centre of the catastrophe, otherwise there was no manner of accounting for the terrible amount of damage. It seemed strange—ironical—that the toil and labor of a decade should thus be destroyed in a few hours. The Chinaman's scheme had been a marvel of completeness, but "the best laid plans—"

We retraced our steps in silence, each one a little chastened by the tragedy that we had passed through. We were nearly to the beach when I put the question.

"What made the Chinaman rush away as he did?" I asked Follansbee. "He turned a sickly colour, and went for his life."

"Didn't you say that you heard his father's name mentioned?" the big man asked. "Well, it's obvious that the servant told him of the coming storm and he rushed off to comfort and protect his father. The paternal reverence is very strongly developed in the Oriental races, and he evidently cared for nothing as long as his father was safe. Recollect that all he had was made possible by the sacrifice of his parent."

We had reached the electric launch, beached high on shore where we had left it. As we swung it around, I voiced the unspoken question of the trio.

"Will anyone believe us," I ruminated, "when we tell them where we have been and what we have seen? I very much doubt that I would, were a person to recount to me the——"

I broke off suddenly. The ground beneath our feet was shivering and heaving, and for a moment, I doubted the evidence of my eyes. The next moment it was still again, and I was about to ridicule the idea when Follansbee grasped me by the arm.

"Did you feel that?" he said. "For God's sake, get that launch on the water. There's going to be a lot of funny things happen here before long. Come on."

In less than twenty minutes we were in sight of the ship once more, and then it was that Follansbee made the final remark. "Not a word about our adventures,"

he warned us. "I'll get Sparks to radio Port Moresby for a destroyer to clean up that island. I suppose that it will be necessary to give them a bare outline."

And I turned to see the foreshore of the island, still brooding and sinister, disappearing into the tropical night.

Not much more remains to be told.

There is one little incident that is worth while recording, however, and it took the form of a radiogram that Follansbee received, after his detailing the story to the Naval Authorities at Port Moresby. It arrived exactly three days after our departure from the island. It is on the table before me as I write.

"Searched water for some time in latitude given. Find no trace of island mentioned. Suspect some elaborate hoax. Am dropping matter."

What is the explanation of that message? Can it be (as my friend informed me) that Ho Ming made his headquarters on one of those roving islands that are never in the same place? Was the mysterious tremors that we felt, forerunners of another upheaval? If so, I often pause to think of the misguided genius that lies fathoms deep in the ocean, and the formula that must remain a secret until the sea gives up its dead.

THE END

Borneo Devils

(Continued from page 1003)

out. Screams followed it. Then the sound of fighting changed and moved swiftly—into the village.

But Betty flushed. And Houghton carefully shifted his revolver from his right hand to his left, and drew her close, and suddenly he kissed her. It was not

much of a kiss, as such things go, but the noise of battle still not very far away and only slowly diminishing was an excuse. Houghton drew back.

"I was wrong, quite wrong! Everything is all right!" said Captain Houghton of the Sarawak Constabulary.

THE END

SPACE

By Schuyler Miller

I saw the earth, like a child's lost toy,
Silver and jet, with a thread of rose
That was the dawn. I saw the moon,
Carven from ancient, pitted ivory,
Naked and dead. I saw the sun,
Winged with flame, a world of living light,
Its blinding glory blotting out the stars.
I saw the Galaxy, a jeweled band
Across the raven tresses of Eternity.
I was alone, a wanderer in the void,
And I was Man.

The Eternal Mask

By Julian Kendig, Jr.

Author of the "Fourth Dimensional Space Penetrator"

WE are sure that our readers will enjoy the touch of novelty and the peculiar atmosphere of this story of space-travel. The author is very individual in his treatment of his topic and we are confident that it will be appreciated by all. Their adventures on the moon are told in a most interesting way.

Illustrated by MOREY

CHAPTER I

The Wager

IT was that hour directly after our evening meal in which we always retired to the living room to sit in easy chairs and smoke and read our favorite newspapers. However, it seldom turned out that we read more than a paragraph at a time, for when three scientists get together in one room, there is seldom any silence.

At the time which I am referring to, the discussion began when Dr. Longhorn looked up from his paper to relight his pipe. I noticed that he was amused.

"You are smiling, Perkins," he ventured.

"Yes," I said, "I was just thinking of the radical old gentleman whom I met on the 'L' this afternoon. He was a professor of Astronomy, I believe, in one of our New York Universities, and of course we got to discussing the subject. He held some pretty strange ideas in his head. He began immediately to tell me his views about what was going to happen to the earth in the near future. 'It is not going to dry up and grow cold,' he said, 'but the earth is doomed to a far worse fate'—and he shook the handle of his folded umbrella at me. 'Mind you,' he said, 'the earth is doomed to a far worse fate. Some day in the near future, the moon will plunge out of the heavens and blow the earth to atoms. You are laughing because you do not understand; but there are strange forces acting upon this universe all the time, about which we know nothing. Do we know what causes almost invisible suns to flare up over night and become first magnitude stars?' He snapped his fingers. 'No one knows. It is because that sun has met with some strange universal force. That same force may some day affect our sun in the same manner, or it may do only local damage. It may cause the moon to cease moving in its course, and to fall into the earth.'"

"Did you obtain the gentleman's name?" asked Longhorn.

"No, I am sorry that I didn't. He proved very interesting in spite of his radical ideas. Of course he said other things too, but he seemed quite serious and concerned about this supposed catastrophe."

"He did not mention any particular force that might be held responsible for this planetary collision did he?"

"No," he referred to it always as 'strange forces.' Why?"

"I was merely endeavoring to ascertain whether or not he knew what he was talking about. If he had specified his force or the origin of his force, I might have congratulated him upon a very remarkable discovery."

"I would be extremely interested to know your reason, Doctor."

"Because there is just such a destructive force, in many places in this universe, but I now take it for granted that his conclusions were nothing more than surmise and were not based upon actual observation."

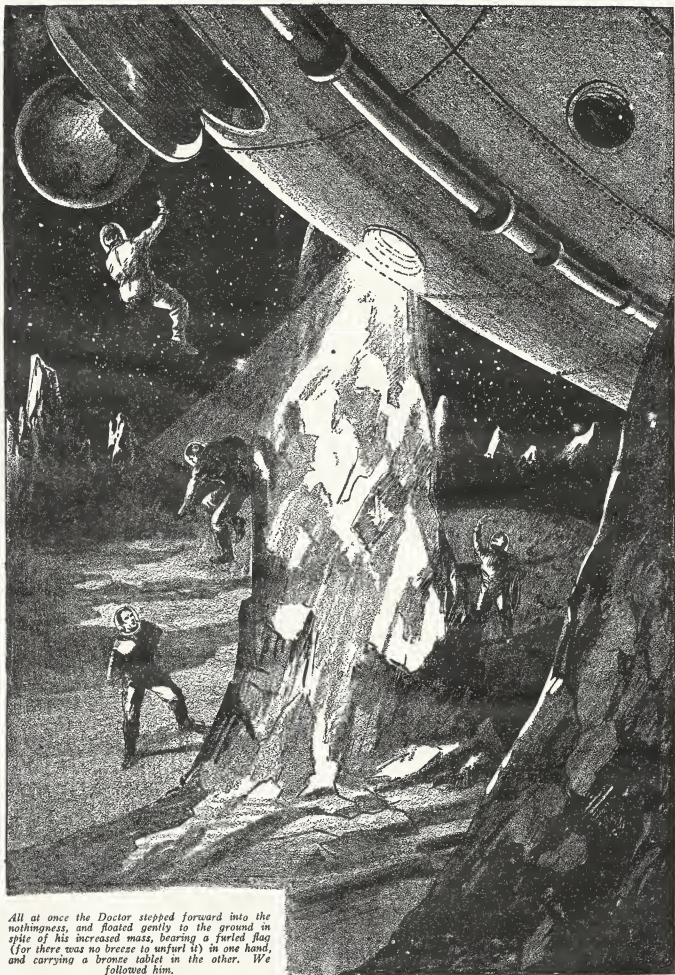
"Why, what do you mean?" I asked.

"Have you ever heard me speak of high resistance ether? No, of course you haven't. Careless of me not to have mentioned it before. Before I met you, Perkins, about ten years ago, I detected, by means of an instrument, which I perfected, vast regions of high resistance ether floating about, in many places in the universe; three of which lie within a hundred light years of our sun, and three of which lie within a single light month; dangerously close."

I noticed by this time that Secretary Lamar,* the third scientist in the room, had dropped his newspaper, and was listening, intensely interested, with introspective calmness.

"High resistance ether, Perkins, does not differ from the ordinary ether, except in one respect," Longhorn continued. "The two ethers are composed of identical atoms except that the electrons of one turn about the nucleus in a contrary direction to that followed by the electrons of the other, thus creating an ethereal gas which is destructive to matter. Upon a greater scale, however, it offers resistance to moving bodies thus causing them to stop. For example, if the solar system were to drift into one of these high resistance fields, I fear very much that the result would be much the same as your astronomer friend predicted. Even while the earth was falling into the sun, the moon would have sealed the gap between it and the earth, and they should be grinding themselves to atoms against each other."

* Secretary Lamar was the native of a hydrogen electron brought to this world by Dr. Longhorn through the medium of the fourth dimension. At home he held a position of great honor as one of the twelve secretaries of science, being himself secretary of Astronomy. Thus the name Lamar. At home he was known planet-wide as Secretary Lama. See Fourth Dimensional Space Penetrator in January number of AMAZING STORIES, 1930.



All at once the Doctor stepped forward into the nothingness, and floated gently to the ground in spite of his increased mass, bearing a furled flag (for there was no breeze to unfurl it) in one hand, and carrying a bronze tablet in the other. We followed him.

"I disagree with you," said Secretary Lamar, suddenly breaking into the discussion.

"I do not object to your disagreeing with me," said the Doctor, "and I should be glad to listen to any evidence to the contrary."

"I should be glad to reproduce for you," Lamar returned, "a simple but convincing experiment which I conducted at home with great success while attempting to solve the mystery of gravity."

"And did you obtain the solution which you set out to obtain?"

"I did to a certain extent, yes."

"What was the trouble?"

"I could not conduct the experiment on anything but a small scale. I got so that I could make small objects properly charged, actually lift themselves off the ground, but when I attempted to build a machine which would lift a man, it would not work."

By this time Dr. Longhorn had risen tensely out of his chair.

"You did that, Mr. Secretary?" he exclaimed.

"I did."

"And what conclusion did you come to?" cried Longhorn, plainly excited.

"That gravity was the function of two distinct——"

"Enough!" cried Longhorn. "I don't know how you happened to discover that, but you did. And you base your theory that two planetary bodies can not collide, upon the results that you obtained?"

"I do, beyond a doubt."

"Excellent!" Dr. Longhorn's fist came down upon the mahogany table with a loud bang of approval. "Listen, Mr. Secretary!" he exclaimed, "can you duplicate that experiment exactly as you did it before?"

"I believe I can, yes."

"And any place that I may ask you to do it?"

Lamar's eyes contracted into an expression of suspicion but he did not hesitate. "I see no reason why it should not work in any place and at any time," he replied.

"Very well," returned Doctor Longhorn—"my new astronomical observatory will be completed to-morrow. To-morrow night you shall take all the necessary tools and material with which to perform the experiment, to my observatory, where we, including you, Perkins, and myself, shall remain until the demonstration is completed. At the same time, I shall be working just as hard to convince you that the moon can collide with the earth, and that it may even do that very thing in the near future."

It was my turn to be surprised. It was the first indication that the Doctor really believed that such a thing were possible.

"Humbug!" I exclaimed, "you can't do that."

"I can't do what?" he said with mock indignity.

"Prove that the moon can collide with the earth."

He laughed. "Have it anyway you wish, Perkins, you may take either side of the argument or remain neutral until after the experiment. In the meantime is everything fixed to satisfy you, Mr. Secretary?"

"Splendid," agreed the Secretary, "Nothing could be more satisfactory, and it is understood that we do not leave the building until one convinces the other, or until Perkins here decides that it is a draw. If you convince me that it is possible for the moon to collide with the earth in the future, instead of continuing forever in its orbit, then you will take the prize. But if I convince

you that it can never collide, then I shall take it. What are the stakes?"

"Would a thousand dollars be too much?" asked Longhorn.

"I would make it two thousand, but it would be taking it away from you," ventured Lamar.

"Two thousand it shall be!" cried Longhorn. "Perkins here will hold the stakes. We can secure the money to-morrow before we begin."

CHAPTER II

An Astounding Coincidence

THE observatory was a new addition to the Doctor's manor. It stood, tall and lonesome, at the summit of a small hillock or knoll at the lower end of a grassy meadow, where it attracted much attention from curious farmers, with its windowless, sheet metal walls, and its sheer height of fifty feet or more above the ground. At the top, a large crystal-like dome shone, like a huge diamond, in the sunlight, through which one might view the heavens at night.

However, farmers did not pause long to look at it, even from the road, for they had grown to fear Dr. Longhorn and his whole one hundred and twenty acres of ground. They avoided it much as some avoid a graveyard at night, nor could I blame them for it. Three or four times each night, there issued from the throat of Dr. Longhorn's pet brontosaurus;* a deathlike and blood-curdling scream, which cut the night like a knife, and is audible for five miles around, and for as many seconds afterward by virtue of its echo. There is no sound in the world like it.

The night set for the experiment was as clear as crystal and as warm as an evening in July although it was already early in September. Beyond the meadow, one could almost make out the lean outline of the observatory tower, and the broad knoll upon which it stood. A dog barked in the distance and, although the sky was moonless, the screech owl whined unharmoniously from the limb of a nearby tree. In all, it was just the manner of atmosphere that impressed deeply upon me, the strange nature of the impending duel between two skilled scientific minds, the one born of a strange molecular world, known to us as an electron; and Dr. Longhorn, a master scientist, born of this world four hundred years in advance of his time, as anyone might judge who knew him.

At the tower, Dr. Longhorn momentarily put down the bag which he was carrying, in order to get the key of the observatory from his pocket.

"I must have lost my duplicate key," he said slowly, "I only seem to have one with me. But it doesn't matter. Are you sure you have that money with you, Perkins?"

I slapped my hip anxiously, and was relieved to find my wallet still where I had carefully buttoned it in.

"All here," I assured.

We climbed up and at last I heard the Doctor at the top, insert the key in the lock, and motioning with his flashlight, he beckoned us to follow. The door, which was more than three quarters of the way up the side, was the only entrance to the strange tower.

Once inside, the light was turned on revealing a large cylindrical room, I judged, about twenty feet in diam-

* A brontosaurus is a prehistoric animal. This particular pet was secured by Longhorn upon the same trip upon which Lamar entered our scientific party.

eter, and furnished with a small wooden table, four chairs, three folding army cots, electric stove and refrigerator, and a large built-in closet. Around the outside, an iron stair spiraled into the room above, which I could just make out through the opening. There was no visible means of descent to the lower floors which I naturally supposed to be there.

"You will observe where I place this key," directed Dr. Longhorn, after securely locking the door. "It shall remain there until one or the other of us attains victory by convincing the other. He may then withdraw the key from this drawer and unlock the door. Have you any objections?"

"As far as I am concerned, Doctor," said Lamar, "the key shall remain there until you wish to open it."

The Doctor seemed to be suddenly greatly relieved.

"Very well, my friends, I shall begin my tour of inspection without further delay. You will find chessmen and dominoes in the cupboard, and cards and chips in that drawer. Amuse yourselves until I return. I shall not be long."

He had scarcely disappeared upstairs before Lamar was diligently engaged in shuffling the cards. I glanced about the room, wondering at the stove and refrigerator and marveled at the foresight of the Doctor in having these things installed for the occasion. Either he thought that this contest would be very long, or else he fully intended to hold many more contests like it, in which no one was allowed to leave the building until one or the other was convinced.

As Lamar began the deal, something occurred which froze the blood in our veins and caused us to stiffen in terror. It was the brontosaurus, with its devil-routing scream. But contrary to custom, even before the echo of the first had died, it emitted a second followed closely by a third, louder and more hair-raising than any before.

"Ugh!" shuddered Lamar, "It sounds like a thousand pigs, all dipped in boiling mud."

"Something is wrong!" I ejaculated, "he has never behaved that way before."

To make sure that everyone heard him, he gave three more, long and vigorous, dying out finally into low penetrating gurgles and moans.

"Sit still," warned Lamar, "remember our contract with the Doctor."

I continued to sit still, the more because I was glued to my seat—not from fear, but from the reaction that those unusual sounds produced upon my nerves. I always held if insects could be killed by sound waves, that they were all dead now—within a radius of five miles.

Finally Lamar continued to deal. We managed to play two hands of rummy before we were again interrupted, this time by someone turning a key in the door-lock (evidently the lost one). The next moment the door was thrown open and Lake, the Doctor's butler rushed into the room.

"Dr. Longhorn! Are you there? Dr. Longhorn! Good Heavens, Sir! I must have him immediately!" He shouted in one continuous word.

The next instant the observatory gave a violent upward lurch, hurling the poor butler prostrate to the floor, and slamming the door at his feet with such violence that the steel building again vibrated, while the excessive draft from the closing sucked the cards from the table and showered them down upon the sprawling figure on the floor. Lamar and I were saved only by gripping the

edge of the table desperately and pulling away from each other. If one had let go, we should have both gone over on our backs.

"A thousand devils!" shouted the startled Secretary. "That was the worst earthquake I have ever experienced, and positively the shortest enduring. 'Up my man, are you hurt?'"

"I jolly near lost my balance that time, sir," he drawled picking himself up.

The Doctor had taken the stairs in three giant strides. "Who had that door open?" he demanded angrily, his face crimson with rage. And then his eyes fell upon his disheveled but placidly standing butler. "Oh it's you is it and how did you get in?"

"I beg your par—"

"Where did you get that key?"

"I say, but I came to bring you the jolly thing!" He exclaimed.

"Good Lord, Lake! Do you realize that you came within an inch of losing your life?"

"By Jove! I thought so myself when that brontosaurus, or what do you call the bally thing, let out that beastly howl. He smelled the smoke from my chops burning on the stove, while I was dashing across the field to bring you the key; and you know there is nothing inspires the beast more to song. Like the song of a lark it is, sir. My ears are ringing yet."

"Well it can't be helped now, where's the key?"

"Good Heavens, Sir! I left the bally thing in the door. The blow will have knocked it half way across the field."

"Good; now we shall not be bothered again. And to make sure that you do not go out and hunt for it, I am going to keep you here with us."

"But my chops, sir, they will be burnt to cinders."

"Mary will take them off."

"This is her night off, sir."

"Nevertheless you are going to stay with us. Get yourself something to eat out of the refrigerator, and when you are finished come up-stairs. You will have to sleep on the floor, as I have no extra bunks."

"Now Mr. Secretary," he turned to us, "if you care to examine the observatory, I should be glad to show you and Perkins about. You may bring all your paraphernalia with you and establish yourselves. Are you ready?"

"Quite," agreed Lamar. And I followed suit.

The observatory bore the same dimensions, of course, as the room below, with a huge transparent dome, a full ten feet across, placed directly in the center of the twenty foot ceiling. In the center of the room was a rather large telescope with a twenty inch objective lens, mounted upon a brass stand and controlled by an elaborate clock-work system. Around the walls there were many laboratory stands and cupboards in which were kept hundreds of Astronomical instruments, large and small, including a huge apparatus for taking pictures of the stars. The stands were brilliantly lighted by drop-lights and wall-lamps set symmetrically about the room, and controlled by a switch near the telescope.

"But you have no opening through which to view the sky," I remarked.

"This crystal dome is made of Clodian glass, an invention of my own, which offers no resistance to light. It is as if there were nothing at all between us and the source. You may ascertain for yourself by peering through the telescope at the moon."

"Not the moon," I replied, "the moon is in its last quarter this week and is not due for five hours yet."

"I am sure that you are mistaken, Perkins, look again," he commanded softly.

I thought he was joking, but I stood upon a stand in order to better see the horizon through the crystal dome. "Oh!" I exclaimed, when I saw that the moon really was rising, "I did not realize that it was so late."

"Nor did I," said Lamar, removing his watch from his waistcoat, "why my watch must have stopped." He held it momentarily to his ear. "Why the blasted thing is going again."

I withdrew mine with some amazement. "Mine also says ten o'clock, someone has been meddling with our watches, why it's ticking as merrily as ever. What on earth is the trouble?"

"Why there is nothing wrong, Perkins," said the Doctor, "absolutely nothing. What objection do you have to its being ten o'clock? It is ten o'clock you know or thereabouts."

"Don't be an ass!" I ejaculated, "The moon is now in the process of rising. Observe," said I, "that it is not full, but in its last quarter. If it were then, really ten o'clock, the moon would now be rising five hours ahead of schedule. For a train—all right; for the moon—never."

"But then, surely, Perkins, you don't mean to assert that it has taken us five hours to walk down from the house, do you? That is absurd."

"Certainly no more absurd than to suppose for one moment that the moon would defy all the laws of nature, to such an extent that it would rise five hours ahead of time."

"Has it defied the laws of nature? That is the question." He spoke so softly that I could hardly hear him.

I bit my lips severely, and let my eyes wander slowly, from the swiftly rising moon to the Doctor's face. It was indeed a curious study in human expression, that I turned to then. He appeared to be worried, and I saw in a moment that the phenomenon was just as strange to him as it was to us. Then again he seemed to be inwardly happy and triumphant. His lips trembled as if controlled by some inward emotion, and his fingers twitched nervously. It was wholly unlike Dr. Longhorn, always calm and self-possessed.

Dr. Longhorn possessed a strange custom of calling people's attention to something unusual by pretending that it was perfectly natural, even though he was greatly alarmed by the event. In this manner he obtained other people's opinions before they became alarmed, and compared their deductions with his own, which at such times were liable to be a little confused. This method often aided considerably in solving a baffling problem.

I shook my head with wonderment. "Can you explain it?" I asked, trying hard not to appear excited.

"You know as much about it as I do," he lied.

Lamar stared at it long and critically with wide eyed amazement. "It is an illusion!" he exclaimed, "look it is rising at an incredible speed. One can almost see it moving, like the large hand of the mantle clock."

"If it is an illusion," declared the Doctor, "the telescope will fail to register it. It may be some form of mirage."

Lamar emitted a word of approval, and stepped to the instrument, whirling it around and downward with three quick turns of the wheel. A few seconds later he was staring eagerly into the huge instrument.

"It is the moon!" He cried in astonishment. "It moves like the wind on the wings of lightning. The earth! It has gone mad! We shall be hurled off into space like stones from a sling!" And then I saw his fingers relax as he opened his closed fist. "Impossible!" He ejaculated obstinately. "I shall not believe it."

So rapidly was the moon rising that in fifteen minutes after we first observed it, it had risen to a position nearly overhead. There was certainly something very mysterious and unusual taking place, which caused my heart to beat rapidly, but Lamar had evidently gotten over his excitement, for he was now seated peacefully within his chair, smoking, and watching it, as if it were some form of entertainment, put on especially for him. It was nothing in his eventful life beyond a new curiosity. I have seen a cat lie upon a cushion and watch the pendulum of a clock in much the same manner. Presently, we heard Lake's foot on the stair, his feet moving in rhythm, as if carrying something which he feared that he might drop. He held a tray high above his head upon which he carried four steaming cups of coffee.

Dear old Lake. He had remembered that we always drank coffee at this hour, and never had I welcomed coffee more in my life.

"Black," said I.

"Black," chimed Lamar.

"Black," echoed the Doctor.

And nervously we stirred the contents of our respective cups, much as if they were to be our last, while the moon shone down from directly over head, casting weird shadows upon the floor.

It was Lake that finally broke the spell. "My but it is a jolly moonlight night," he echoed. "The brontosaunder will be screaming its best tonight."

"Do you like it?" asked Dr. Longhorn cheerily.

"The brontosaunder?" Well, really I would cut its belly thro' the first chance, if it wasn't that it would scream while I was doin' it, sir."

"No, I mean do you like the moonlight night?"

"It is sublime, Sir; just the kind of night for a jolly ride in the country, and an oyster cocktail at Bailly's afterwards, with the boys."

Silently we watched the moon descend upon the opposite side until it reached a point slightly above forty-five degrees from the horizon, and then while we all sat and gaped with astonishment, it stopped, hovered there undecided for a moment, and then with sudden determination, reeled, rallied, and conquered. It was defying all the laws in the universe! It was climbing back!

"Good Lord!" shouted Longhorn, "What diabolical thing is this? Are we all crazy? Do we all see the same?"

Lamar was now standing in a half-rising position from his chair, his pipe half way to his gaping mouth. "Incredible!" he exclaimed. "I defy anyone to swear that the earth is rolling back upon itself."

No one did. No one could. There would have been perfect silence if Lake had not recently lapsed into a state of rumbling and stertorous slumber.

"Is there no explanation for it?" I pleaded.

"Yes," said the Doctor, "there is, of course."

"And you can explain it?" I asked hopefully.

"I believe I can present you with a logical explanation. It may indeed seem incredible to you at first, but nevertheless it is undoubtedly the only plausible solution. It is born of an astounding and unbelievable coincidence. The very thing has happened that Lamar said could not

happen, and that is namely, that we have been enveloped by that vast region of high-friction ether, about which I have spoken. We! Our sun! The earth! The moon! The solar system! All are doomed."

"But directly the opposite effect has been produced," remarked Lamar, "The earth has accelerated her diurnal motion; how do you attempt to explain that?"

"I disagree with you entirely," returned the Doctor. "Directly the opposite effect has not been produced."

"According to your theory; the moon and the earth would be decelerated by this field of high friction ether."

"I assure you, my dear Lamar, that the earth has turned for its last time to-night. Do you not see that the earth is now adjusting itself to a position of exact equilibrium. The moon has lost its centrifugal force. Its centripetal force pushes it towards the earth or more correctly according to present beliefs the moon is being drawn towards the earth by the attraction of gravitation, which exists between them. The result is that the attraction for each other becomes more and more as they approach, and naturally the side of the earth with the greatest mass is brought into direct proximity. That evidently is this side. The attraction is very sudden, for the slightest abnormality one way or the other causes many powerful forces to work against any other bodies which happen to lie within the vicinity of the change."

"But you forgot," said Lamar, "that the earth is at the same time falling into the sun."

"The earth is indeed falling into the sun, but the net change between earth and sun is so little, and between earth and moon so great, that the moon's attraction is by far the most effective."

I can not describe the series of lightning sensations which passed through me in that brief moment of apprehension. Here two scientists were arguing about trivial theories while an overwhelming fact in the form of certain world destruction was staring them in the face.

"Great guns!" exclaimed Lamar, "how fast is it falling?"

"I judge about two thousand miles an hour now," answered Dr. Longhorn. "Two hours from now, I shall not be surprised if it falls at the rate of five thousand miles per hour, which rate it will not exceed, owing to the high resistance."

Lamar laughed. "Why, that is physically impossible," he exclaimed. "I know that it is because I have proved it to myself without a doubt, and I shall prove it again. All the universal forces cannot change in that way. In fact no force can change, because they are all governed by definite laws. I shall begin work immediately. Lake! Help me lift my apparatus to the stand."

Lake did so with his eyes half-shut, falling to sleep again, almost before he had set the apparatus carefully down.

That night before retiring we saw the moon descend in the East three times, each time less and less until it finally ceased to move altogether, but stationed itself permanently overhead.

CHAPTER III

The Approach of Doom

THE next morning after a practically sleepless night, I awoke to find the Doctor arisen and the Secretary's bed unslept in. I did not bother about my breakfast, but hastily donned my garments and

hurried up to the laboratory. There I found the Secretary still at work with some instruments upon the table, and the Doctor busily occupied with his telescope. The moon still held a position directly overhead and was visibly larger . . .

"How far away is it?" I asked.

Both men looked up.

"Good morning, Perkins," they greeted cheerfully.

"Why," said the Doctor, "it is 190,000 miles away."

"And how far away was it originally?"

"Approximately 230,000 miles."

Lamar turned around skeptically. "And it always will be 230,000 miles away," he declared.

I marvelled at his insane obstinacy. A blind man could see that it was much closer now.

"Everyone has the right to his own opinions," said the Doctor sadly, "Lamar is an optimist, but you can take either side, Perkins, unless you wish to remain neutral."

So greatly did I admire Secretary Lamar's optimism, that I determined to in no way offend him. Thus I decided to answer, that I was willing to remain neutral. But in my heart I realized that nothing could now save the earth from destruction.

"Lake, can you fry eggs?" asked Longhorn suddenly changing the subject.

"Indeed, sir, I was a bachelor, that cooked his own meals for ten years. I can fry anything; which reminds me, sir, that my chops are still frying."

The eggs were delicious, and so were the toast and coffee.

"Lake," exclaimed Longhorn at the conclusion of our breakfast, "you have been promoted to the position of chief cook."

Late that morning, Lamar announced that he was ready to perform the experiment which was to convince us that the earth and moon could never become involved in a collision.

"Are you positive that it will work?" asked Dr. Longhorn.

"You may place the key in the door on the bench beside me, so that I may open the door when I am finished, as per agreement," he replied.

He connected a transformer to the electric light socket, and then he ran two wires to a hollow cylinder about which he had wrapped a network of a particular kind of wire, both inside and out.

"How many volts on the circuit?" he asked, ready to turn the switch.

"One hundred and ten," assured the Doctor.

"Good, now watch closely."

He snapped the switch and watched it for a few seconds expectantly. He snapped it off. He reset the wires patiently and carefully with steady fingers, and again tried the switch. It was useless. For some strange reason, against his greatest expectations, his experiment had failed, and the Doctor was triumphing, with the moon in the actual act of falling.

"I believe," said Dr. Langhorn slowly, "that you had better return the key to me."

Lamar's face registered extreme astonishment. He stared perplexedly at the crude apparatus on the table with startled and earnest eyes.

"What has happened to the universe?" he cried, "It is not natural. It is a nightmare! A horrible dream!" He stood silently dazed for the moment, and then his

eyes wandered to the figure of the moon growing steadily larger with each fleeting hour. We could see it grow.

"No," he said, "I shall try again. The universe does not change its mind like a woman, when it is angry. There is something supernatural—false—incomprehensible. It does not convince me. Not because I am obstinate, but because there is something in the atmosphere which is repulsive of truth. It says to me the moon is not falling, and I listen." He held his hand in a gesture of silence as if to catch any stray sound which might be in the room.

"It seems to me," he cried, "that I am conscious of a low musical hum. It has been singing to me all night."

"You hear my generator at work downstairs."

"Generator!" Exclaimed Lamar. "Then this is not operated on the house circuit?"

"Oh no. I considered it much more practical to install my own power plant. You have, no doubt, noticed that the lights are blinking very fast. You can see it better by looking at one indirectly. This is caused by the alternating current changing only twenty-five times per second instead of the customary sixty."

"May I go downstairs and inspect the generator?"

"Out of bounds," reminded the Doctor. "I give you my word of honor that my generator is perfectly normal, and will produce the same effect as would be produced on the house circuit. No, Mr. Secretary you have guessed the wrong reason why I have chosen this observatory to serve as your workshop."

"All right then, Doctor, suppose that you begin to perform your experiment to convince me that the earth and moon can collide."

Doctor Longhorn's eyes widened in astonishment.

"Good Heavens, Mr. Secretary! I should not have to. The moon has very courteously stepped in; is actually performing the act, and saving me the bother of a demonstration."

"Hm-m-m," said Lamar.

The Doctor drew forth his watch. "It is noon," he said, "the moon began to fall at ten o'clock last evening. At the same time as the earthquake," reminded Lamar.

"No doubt the earthquake may be directly attributed to the change," assured Longhorn, "but that is not what I am trying to put across. The point is that the moon is 60,000 miles closer than it was last night. And—" he pointed towards it, "it is growing larger every minute, and approaching at the rate of 5,000 miles per hour."

"Mighty strange," mused Lamar.

"Have you any other explanation for it?" shot back Longhorn.

"I may have, and I may not. I am about to try this experiment over again in a slightly different but very convincing manner."

"My, but you are obstinate," said Longhorn.

"On the other hand," returned Lamar, "you are the most ingenious man that I have ever staked my knowledge of astrophysics against. I do not know your secret, but I am sure to find out sooner or later. And—" he turned to me, "Perkins, do not believe for one second that the earth is going to collide with the moon because it is not."

"What did he mean by that?" I asked myself. There was indeed a tone of assurance in his voice which I could but half resist, but there was no power in the world could make me believe now, that the world was not doomed. Two days ago I would have sworn that such

a thing was impossible.

Now I was ready to swear that nothing could save the world.

By ten o'clock that evening the moon had increased in size to quite noticeable dimensions, appearing now about four times its original size, or about as the earth would appear normally from the moon. So clear was the atmosphere that our satellite was strangely unaccompanied by any halo of light whatsoever. Even a star which was half-eclipsed by the huge blue-black and silvery disc, refused to be drowned out by the much brighter source of light.

Longhorn seemed to have observed my interest and he proceeded to enlighten me.

"You have noticed the extraordinary clearness of the atmosphere, I perceive."

"A remarkable clear night," I admitted in wonderment.

"It is due to one of the many peculiar properties of my Clodian glass, Perkins, and is not entirely indebted to the clearness of the sky, although one could not produce the effect without the other feature. Your eye receives no light through that glass that is not direct. If it were not for that fact, we might be incessantly bothered by automobile lights from the road. They would cloud our vision by shining diffusely upon the dome."

"It is the most wonderful glass I believe that I ever saw; almost like crystal," I said. I stood silently for a while admiring the beauty of the soft yellow and black spectacle above us, with this huge yellow crescent sparkling amidst myriads of fiery stars. Then second by second the dazzling reality of the situation impressed itself clearly upon my brain. This was not beauty; this was not splendor; this was not the supreme magnificence that one expects to find when he looks out into the universe.

It was truly a titanic, diabolical death-dealing machine of destruction upon which I was gazing. It was repulsive, horrible and gruesome, with all the characteristics of deformity. Was there beauty in this mighty world, hurling all of its stupendous bulk murderously upon a brother world. From every crater upon its long dead surface, there seemed to spout everything indicative of complete destruction. What treason had I committed to thus stand watching it as if I loved and admired it?

It was a world long dead, now given a startling admission to life. But what woe? What universal sorrow? The human race! Was it to be blasted out by one mighty blow from the heavens? Our world that we were given? It was falsity. I understood now why Lamar was so reluctant to admit the truth. It was not possible for any person, who had spent his life thinking and philosophizing, to believe or accept any evidence contrary to the continued existence of life, no matter how real the danger.

"Tell me," I pleaded, "how far away is the moon now?"

"The moon has decreased her distance 110,000 miles since last evening at this time. That is to say, that it has nearly half closed the gap between the two bodies. Ten o'clock tomorrow night is the zero hour."

Lamar looked up from his work long enough to utter a groan of disapproval. "I am about to make one last test to prove that it is impossible for two planets to collide. Come and watch it."

CHAPTER IV

Lamar's Theory

DOUBTFULLY we walked over to where the Secretary had laid out his laboratory.

"We shall see now," he said, "whether or not nature changes her laws. I have here a small meter with which I can measure the force which is responsible for gravity. It is the same force which I attempted to use as an aid for lifting my coil. A proof of the existence of this force would prove conclusively that no two heavenly bodies could collide.

"It is rumored that there are two forces responsible for the moon maintaining a constant orbit; namely, centripetal force tending to draw the moon towards the earth, and centrifugal force always tending to hold it away. Now according to this law, if the moon were to cease rotating, all centrifugal force would be lost and the moon would be attracted to the earth, and a collision would no doubt be the result. But it is not true that it would collide with the earth, for there is an auxiliary force existing, which would permanently keep up the good work done by centrifugal force. I shall endeavor to make myself clear. I must warn you to be patient with me until I am through, as my theory may at first seem unreasonable.

"In the first place, regardless of how much evidence there is to the contrary, gravity is the final result of repulsion and not attraction as it has long been supposed. I began to answer back in the Doctor's library, when he interrupted me, that gravity may be attributed to two distinct and cooperative forces. This I have proved by actual experiment.

"No one has ever proved that gravity is an attractive force, nor has he shown us what causes this strange attraction between bodies. The scientists of to-day view gravity much as the men of Caesar's time viewed the world. They said it was flat and that the heavens rotated about it, because that is the way it seemed. It took fourteen centuries to find the truth.

"We have much the same problem with gravity. Remember that the ancient theories of the world served their purposes, both mathematically and for all practical needs, until Europe wanted a shorter route to China. It seems now that it is high time that we find out that gravity is a repulsive force, because it will save us a great deal of useless worry about what appears to be certain disaster. If it is not repulsion then there is no hope for the world."

"But do not attempt to inform me that the repulsive force from the infinitely distant outer universe is greater than the repulsive force of the earth at its surface," said I, "for if it were otherwise, according to your theory, the earth would hurl the people away from it. You are making it out that the forces increase in power the farther they are from their source."

"Not at all, my dear Perkins, I was just coming to that part of my explanation. The forces expelled by the earth, do not affect matter directly, because they leave in the form of a wave through the ether, much in the same manner as radio waves. If these waves did so affect matter, this force would only serve to destroy the earth, for each tiny particle in the earth's structure would work only to repel its neighbor, and thus bring about the dissolution of the entire universe. However, fortunately, once these forces are expelled, matter is no longer

susceptible to their action. These waves, therefore progress without resistance until they meet similar waves from the rest of the universe.

"At first the waves from the earth are more powerful, but as their power diminishes inversely as the square of their distance from the earth, they at last reach a point where they are exactly equal in power to the forces from outer space. Neither of them can progress, and as these waves are being continually produced something must happen to relieve the condition. The result is that the waves are converted into a pressure which acts upon the earth, using the out-going waves as an atmosphere or a medium in which to work. A similar conversion takes place when light-waves are converted into heat-waves, after striking an obstacle in their path, such as matter.

"It is this pressure, friends, that is gravity, and serves to hold us to the earth, and provides a mutual attraction between all the particles which go to make up the earth.

"Reviewing in simple language, the earth produces waves which are reflected by similar forces from outer space, and converted into a pressure. We cannot feel the waves, but we can the resultant pressure. Thus every particle in the universe is dependent upon every other particle and on itself. An earth without a universe about it, could not exist."

Dr. Longhorn either was not or pretended not to be convinced. At any rate, he seemed to be very anxious to destroy Lamar's confidence in his own theory.

"What does that have to do with the theory that two heavenly bodies such as the earth and moon cannot collide?" he asked.

"Remember that the earth and moon are not held apart by centrifugal force alone," explained Lamar. "The moon also sends out these ethereal waves, which meet those of the earth. But if the moon were too close to the earth in the first place, there would not be a point between us where both forces had the same power as the force of the exterior universe pushing from behind. The two bodies would then repel each other until this equilibrium were produced. Provided that the moon were to remain stationary now, we should have equal pressure upon the surface of the earth.

"But this is not the case. Centrifugal force is added to the repulsive powers of the earth and moon together, by the moon's progress in an elliptical orbit about the earth. This places the moon beyond its gravitational equilibrium, thus creating a release of pressure upon the surface of the earth, at a point directly beneath it. If it happens to be over the sea, the water is drawn into the resultant vacuum, thereby producing the tides.

"I answered your question now, Doctor, besides the one that I saw that Perkins was going to ask. Am I not right, Perkins?"

I nodded in astonishment, for indeed had he given me the chance I should not have hesitated to ask him how he explained the tides by his theory.

"So far, so good," acknowledged the Doctor, "Now, perhaps you can explain what there is in matter to create these waves that you state are expelled by the earth and the remainder of the heavenly bodies."

"That I can answer also," declared Lamar, "but only in theory. These other things which I have just stated, I have practically proved, but I can only attribute these wave motions to a vibration which may exist in the molecules of matter itself; or to a disturbance created in the ether by the whirling electrons. If the ether were

repelled fast enough, it would offer no resistance to the motion of the electron whatsoever."

"Still that does not explain why the earth and moon cannot collide," returned the Doctor, "provided that we are within a field of high resistance ether. Perhaps these waves do not exist in an ether field such as we are now passing through."

Lamar's eyes grew big with sudden apprehension, but it passed in a second.

"That we shall see," he answered defiantly. "I had almost forgotten my meter for measuring these waves. Watch when I turn the switch." He practically repeated the experiment of earlier hours, except that in place of the strange coil that he had used before, he had substituted his improvised meter. As he admitted the current the needle jerked slightly, and a loud hum was heard to practically fill the room.

"A thousands devils!" he exclaimed. "The force is there but Godfrey, how weak? I cannot understand. The force should have twirled the needle about as if it were connected to a tightly wound spring."

"That is exactly as it should be," Dr. Longhorn replied quickly. "That proves, without a doubt, that the earth has indeed entered a region of high friction ether. As you say, you have performed this experiment before. Your results do not seem to check with your previous results."

"Look at the moon. Look at the results of your experiment! And what have you? Nothing but evidence supporting the astounding fact contrary to all human beliefs including my own, that the earth will be destroyed in collision with its own satellite. Incredible but true. They will meet in mortal combat, and both shall die the victims of their own rage."

Gallantly and obstinately Lamar stood facing the Doctor. "No," he replied, "the evidence is against it." For a moment he stood peering up at the beautiful image above him. "Decidedly so," he concluded.

Longhorn and I could not refrain from smiling. Why had he said that? In what manner of form had his mind been twisted to see things in such a strangely contrary way. It was so obvious, yet a man dared to stand and defy the moon and the entire universe with a few simple meaningless words. "The evidence is against it," he had said.

Very little sleep was obtained that night by either Lamar or myself. Lake slept at night as well as by day, we discovered, when a few strange and extraordinary gurgles and moans began to issue musically from his corner, but from the Doctor we heard not a sound, indicating that he also was asleep. As my watch ticked unusually loud from the top of an iron stand, I realized constantly that every tick (three to the second) brought the moon a half mile nearer to our destruction. I endeavored to sleep by imagining, as I thought that Lamar did: that it was all a horrible dream.

As I lay there, I suddenly became conscious of thoughts—not my own—being impressed forcefully upon my brain. Slowly I began to realize that these strange impressions upon my mind were coming from Lamar, who, as I have related in a previous chronicle, possessed that strange and incomprehensible power known as mental telepathy. Lamar also had the power of teaching others to use this method of communication. Thus I was able to answer him by the same means.

"Have no fear," he said, "the earth and moon will

not collide. It is impossible." This was some comfort.

I wanted to tell him to go to sleep and not bother me with such absurd suggestions, but I didn't.

"I wish I could believe as you do," I answered, "but there is no good in trying to fool ourselves. There can be no doubt about what is taking place."

Lamar sighed audibly.

"Again I repeat to you, do not believe all that you see. The world is not flat; neither is it the sun that moves about the earth, but the earth about the sun. There is an element in science, my boy, that has as yet been given nothing more than a name by most of the known world. Einstein termed it relativity. But even he, as famous as he is for being the first man to explain it, gave us but an atom of the true thing. Many of the things that scientists all over the world have accepted as fact, are merely appearances, as the result of an unnoticed relation. Put a scientist in our position now and what would he say?"

"No doubt," said I, "there isn't a scientist living on the earth to-day, has not reasoned as we have. There isn't a chance in the world of us mistaking the truth. The fact remains. Take it or leave it."

Again he sighed.

"I am merely appealing to your sense of reason," he said. "Can't you see that such a collision is impossible? Can't you understand?" he pleaded.

"I believe," said I, "that you, yourself are deceived by a false hope. 'You have hoped so seriously for the best, that you almost imagine that something is going to step in at the last minute, and push the moon away again.'"

"You speak to me as to a child."

"I am sorry. I suppose that we are all a little upset. We could be in a worse position, couldn't we? Think of New York City tonight. Confusion! Mêlée! Stampedes! Terror!"

By eight o'clock the next morning, the moon had doubled its apparent diameter since the previous evening, which made it now appear a full sixteen times its original area, in accordance with the law of inverse squares. It had, of course, increased in brilliancy a similar number of times. One could, in fact, now read by that light, however weird and shadow-provoking it was, and in spite of the fact that the moon revealed by the reflected sunlight, only a very thin crescent of light.

Lamar and I were again alone.

"You stare at the moon yet do not wonder," he said. I turned to him questioningly.

"Describe the moon," he continued. "Is it not a great thin crescent?"

"Yes," I answered, "it is almost like the new moon reversed."

"And have you ever seen the new moon directly overhead before?"

"The moon is never over head in New York State." "But you have seen it nearly overhead."

"Nearly, yes."

"And where was the sun at that time?"

"The sun, why— Good Heavens, it was daylight—evening. Why it was sunset."

"And that is exactly what it should be now; sunrise instead of sunset, however."

"But it isn't," I said blankly.

"Ah, that is true, but the fact remains that it should be, and that it is the first time in history that it has not been as it should be."

"There certainly does not seem to be any natural explanation for it," I cried. "This whole experience has me going anyway. My brain has been strained to capacity. It is mystery, mystery, mystery. Sometimes I begin to think that the Doctor has something up his sleeve. It has all been remarkably strange and unnatural since he first started the argument. Still I have not seen him make a suspicious move, and he seems to be just as serious and concerned as we are. Of course he couldn't possibly have; it is just the way I have felt."

"Either we are all the victims of an illusion, or the physical laws of the universe no longer follow a definite order. I am quite unwilling to accept the last conclusion."

"There is no use for me to surmise," I admitted, "it is something too complicated for me to grasp."

"I wonder," said Lamar.

The day passed with little or no action. It was to be the last day and an extremely short one. As each hour sped silently by Lamar paced the floor unceasingly, with his head lowered and his hands clasped behind his back. At times he would stop to rest for a moment and would sit back in a comfortable chair, smoking introspectively and watching the almost visible approach of the moon. Even though his eyes were half closed, they reflected deeply, from between his eyelashes, the pale yellow light, as if it were issuing from the innermost part of his brain.

Dr. Longhorn and Lake had both assumed an air of triumphant calmness, which became more noticeable as the day grew older. Now and then the Doctor would peer long and ponderously into his telescope, whose clockwork system had long since been stopped, and motion us to notice some particular bright marking upon the moon's surface, some streak, or some hitherto undiscovered mountain range, now brought into view by our proximity. As I peered into that long brass tube myself, and observed the moon filling the entire field of vision four times over, I was reminded that it would be but a very few hours until the entire sky were eclipsed. To the Doctor it was beautiful and magnificent; to me it loomed mighty and terrible, like some titanic living monster.

"A dead, dead world," remarked Lamar.

"To me it seems extremely lively, sir," responded Lake.

"Lively in many ways, my dear Lake," added Longhorn. "I personally believe that there is life upon that world, worthy of being called human."

"Why worry about that now?" I exploded. "Just more human lives to be snuffed out in the end."

Silence followed from which there seemed to be no recovery. At noon the moon loomed mightily above us at a mere distance of 50,000 miles. From then on it seemed to expand in leaps and bounds. By three o'clock, its approximate diameter had increased to sixty times its original diameter, and in spite of the disaster written all over its face, I could not help being overwhelmed by its beauty. Long, black shadows were now distinctly visible as natural projections of high, jagged mountains. The stillness was appalling, which fact, greatly magnified the weirdness of its silent yellow light casting shadows of ourselves distinctly upon the floor of the roof of the observatory. Dimmed ever so slightly, I supposed by the glass roof of our observatory, it showed many times clearer, than when magnified to such a diameter by the aid of an ordinary telescope.

Between the hours of three and eight, I spent much

time puzzling over the inconsistencies of the strange phenomenon. Again and again I reviewed completely the conversation which had taken place between Lamar and myself earlier in the day, and again the unexpected result of the experiment with the gravity meter the night before. To me who had spent my entire life among great scientists, Lamar's theory of gravity and of the supposed vibration of matter were not to be thoughtlessly disregarded; and like all new things, it was difficult to accept them without thoughtful consideration. A thoughtful and broadminded scientist does not disregard a theory upon a single contradiction or bit of contrary evidence; nor does he accept it because it at first sounds logical. In the first place, this bit of contrary evidence, if properly analyzed, may itself prove incorrect, and there is no theory perfect enough that it cannot be subjected to honest criticism.

I began to consider what had been said concerning the tides. The earth pushed the water up, Lamar had said, because the pressure was released by the shielding effects of the moon. Suddenly a strange feeling came over me. There was the moon just above us, less than fifteen thousand miles away, and filling half the sky. It was then no doubt within the orbit of gravitational equilibrium. If Lamar's theory were to be accepted, we should then be nearly crushed already by the intense pressure existing between the earth and the moon. On the other hand if this pressure existed the earth and moon would be held forcibly apart, unless the moon was pushed from behind. That was it! The moon was being pushed from behind! But by what? I would go and ask the Doctor and the Secretary immediately.

Both listened with a surprisingly small amount of enthusiasm, but nevertheless Lamar was suddenly inspired to again visit his work table.

"You are wrong, Perkins, but at any rate you have given me a long needed suggestion. Please connect these wires to *plus* and *minus* respectively, on that battery. I do not believe that it makes any difference whether I use a battery or a transformer, but I am going to try the battery this time. Are you ready?"

"There is a coil in this meter similar to the coil which I tried to lift awhile ago with the aid of the primary force, which explains the simplicity of this apparatus, and why I need merely connect it directly to the battery. —Now I shall adjust the rheostat—ready?"

Immediately the experiment was characterized by the same loud hum, but it was easy to see that the needle was endeavoring to work backwards, but it was stopped by a peg, put there for the purpose of arresting its motion.

"Eureka!" He cried, "reverse the connections, quick!" I did so wonderingly. This time when he turned the switch, the needle was thrown violently, to a point three-quarters of the way about its pivot.

"Success at last!" he cried, "but what a splendid surprise. Longhorn, I congratulate you upon a most remarkable achievement."

Dr. Longhorn registered a look of keen amazement. "For which I thank you most heartily, by dear Lamar," he answered quickly. "But isn't there some mistake? You have just now admitted that you yourself have succeeded. I believe it is my duty to congratulate you. I can think of nothing that I have accomplished, of note."

"I shall write it down for the present, and show it to you later." He tore a piece of wrapping paper, and

hesitating, scribbled a few words upon it, after which he folded it and presented it to the Doctor, asking him to sign his name on the outside.

"No, it is not sleight of hand," he assured him. "This is just a precaution I take to show you that I will not have performed a sleight of hand behind your back, later on."

He took the paper back, placing it carefully within an empty safety match box. "When I again open that box, Longhorn, you shall lose exactly two thousand dollars."

"How immensely interesting?" The Doctor took advantage of the following few seconds of silence to glance upward at that vast shady disc hovering threateningly above us. "I can see that it makes no difference who wins now." He sighed.

CHAPTER V

Sealing the Gap

THE moon had by this time grown until it filled half the sky. Never before had I seen such a magnificent sight. The reflected sunlight upon its surface was almost a blinding white, particularly around Tycho which seemed to be glistening ice.

The Doctor's powerful telescope now brought the observer's eye up to within seven miles of its surface. This was close enough to confirm its absence of atmosphere. We could now look deep down into the starving mouths of its many volcanoes to see nothing but blackness.

Gradually the moon began to lose its disc-like appearance and it assumed immense perspective that actually destroyed the dome-like effect of the sky, causing us to realize that the sky possessed much greater depth than we had ever known to exist.

Finally the Doctor announced with startling calmness that the moon was now only one thousand miles away.

"I fear that I shall have to ask you all to descend to the second floor. I advise you to lie comfortably in bed and rest. I shall remain here. There is one chance of saving ourselves, but you must do as I say."

Even while he spoke a hundred miles was chopped off the distance. I laughed hysterically, and I felt myself being led downstairs with Lamar holding firmly to my left arm.

"What miracle can save us now?" I cried desperately.

We waited silently while the second hand completed nine revolutions. I knew now that the moon must be less than a hundred miles distant. As the hand completed a tenth revolution I instinctively shut my eyes and held my breath. Nothing happened. Ten minutes passed during which period I had held my breath, a hundred times expecting every second to be the last. Suddenly I was conscious of a loud roar. It was growing louder. Was it the moon crashing through our atmosphere? And then an ear-splitting crash and all became silent.

Slowly I began to regain my half-lost consciousness. I was being shaken. I thought that I was being tossed about in a carpet. I was dizzy and light-headed in the extreme. I seemed to want to float about the room. I may have thought that I was dead. I then seemed to be in a thick mist with some one calling me from out on the sea. Then my thoughts began to rearrange themselves, and little by little the Doctor's face began to materialize and fill my field of vision. He was smiling.

"Everything is perfect," he assured us, "are you all right. Don't be alarmed if you are a little light-headed, you will soon get used to it."

I sat up with a start, and looked around with much astonishment. There were only two pieces of furniture standing in the room; the chair that Lamar was sitting in and the bed that I myself was lying on. Lamar, who possessed a much stronger constitution than I, was smoking his pipe.

"Of course you are anxious to find out how we escaped the collision, aren't you? I should be glad to show you if you will follow me." We soon recovered Lake from the debris, who was more astonished than I was, and thought we must be representatives from jolly old Hades.

Apprehensively, we all filed up the iron stairs behind the Doctor, to find that he had drawn a metal screen over the top of the crystal dome. All the lights were burning, and by the time he had turned them all out, thus throwing the room into darkness, we were all completely overwhelmed by curiosity.

"I have prepared a little entertainment here, of my own," the Doctor announced, "I hope that you will enjoy it."

There was a click followed closely by a roar, and the shutter slid swiftly into place. It was the selfsame roar that I had heard just before the catastrophe. For the first time since the beginning of our confinement, Lake was entertained enough to exclaim, "Oh, I say!" Lamar dropped his pipe with astonishment, and ran quickly to the telescope. "I knew it!" he exclaimed excitedly, "it all happened just as I had predicted." As for myself, I fairly shouted with astonishment. The moon, if such it was, had miraculously decreased in apparent size until it appeared to be only four times its original diameter. I could neither move nor speak.

In the meantime, however, Lamar had focused the telescope to the correct distance. Suddenly he began to laugh.

"Congratulations!" he said exultingly "A most remarkable achievement, performed in a most remarkable manner. It is positively the most astounding deception, I have ever seen in my life. Doctor, there is only one man in the world who could have accomplished it, and that is you. There is not a scientist in the world would not have been deceived." By this time, Dr. Longhorn's hand was gripped firmly in that of his opponent.

"And may I remind you about that little message that you so carefully deposited in a match box, saying that the next time you opened it, I would lose two thousand dollars."

"Indeed I had almost forgotten it. Here it is. You may open it yourself."

The Doctor did so, read it hurriedly, and passed it on to me. With trembling fingers I read the following words:

"We are traveling within a space machine bound for the moon."

Signed, Lamar."

With a cry of amazement, I rushed to the telescope. Just as the note had indicated, clearly outlined upon the face of that yellow disc, were the east coast of North and South America, and most of the west coast of Europe and Africa.

"The earth, by all the Angels in Heaven!" I exclaimed. "And welcome to the moon," said the Doctor. "Perkins! Lamar! We are on the moon!"

It was as if I had been on the earth and suddenly

transported to the moon, for not so long ago, I would have sworn that I was on the earth, and that very shortly I would draw my last breath on our material world. Here instead of a violent, sudden death, I found awaiting me, a short vacation upon a world over two hundred thousand miles from home. It was too wonderful to be true. And Lamar had been right, when he had stated that the earth and moon would never collide. "The evidence is against it," he had said.

I withdrew the wallet containing the \$4,000, with a glance in the Doctor's direction.

"Yes," he nodded, "I have failed miserably, in my attempt to convince Lamar, and I knew in the beginning that the earth and moon will never collide, as long as there is a universe."

I understood now. Beneath his scientific dignity, Dr. Longhorn possessed a strange, silent, whimsical nature liberally supplied with a certain inborn love for creating mystery. He was what some might term a practical joker upon a huge scale, in keeping, however, with the supreme might of his knowledge and experience, and his intriguing affection for scientific adventure. There was that Sherlock Holmes, save-all-explanation-for-the-last-air about him, which often times amused me considerably, but this same air never failed to hold me in a state of strangling suspense throughout the entire venture, during which time I could feel my brain pressing madly against the top of my skull. It seemed, to be a result of the extreme pressure caused by an aggravating inability to interpret the many marvels which I had beheld. This time the suspense was of an entirely different nature, and indeed it was so different, that I had failed to recognize it. It was gruesome and terrifying beyond all comprehension. I know no English words to describe my emotions during those last five hours of morbid expectations. A thousand times I had seen my world destroyed; blown to countless atoms by a mighty superhuman machine of destruction, only to find in the end that it was a vision helped by human invention.

This had been my unconscious hope; now it was reality. Dr. Longhorn, under the cover of a diabolical joke, had carried out one of the most prodigious achievements ever conceived by the mind of man. He had sealed the gap between earth and moon with a man-made machine; had done it alone, for we were all ignorant of what was taking place; and had accomplished this remarkable feat in an incredibly short time. In the meanwhile he had caused us also to believe in an utterly ridiculous impossibility, that the moon was falling.

"This then is your astronomical observatory?" I asked bewildered.

Dr. Longhorn laughed. "Yes, friends, this is indeed an astronomical observatory, built to view the heavens. It is one that is not satisfied with viewing the heavens from a distance, or to see them alone. It must go to them, visit and see them. It must hear the true music of the spheres, mentioned by Shakespeare, and feel that native essence which is characteristic of every world alone. I can feel it now. We all do, and shall be conscious of it until we again leave it, and pass far beyond the moon's field of attraction, which at times seems to extend even to the earth.

"There are people on this world, my friends. Often as I have walked under their soft yellow light of evenings, I have felt the presence of these moon people impressively. They all seemed to be there, or rather their spirits seemed to be there concentrated in that tiny circle

of light, and all the forces of their minds and souls were manifest in each silvery beam, calling for me to recognize them. It was upon one of these moonlight evenings that I determined to answer them by going to them and assuring myself, that it was not all imagination. It is strange how after I once forced myself by reason to believe that the moon was really inhabited, how firmly it clung to me, and how easily theories presented themselves to me, based on facts already known, which logically explained how this was possible even upon a world, so long supposed to be dead. Carefully I weighed the theory, until I had explained to my own satisfaction, every argument which might stand in its way.

Once determined to go, since I was anxious to prove my theory as well as visit the moon inhabitants, there was nothing left to do other than collect together the results of my experience and mold them into a vehicle, in which I might transport myself across that seemingly endless vacuum which separated me from my goal.

"At that time I fully intended to tell you of my plans, but it suddenly occurred to me that here was a splendid opportunity to create in someone the sensation that the moon was falling upon them; a sensation, fortunately, never before experienced by man."

"You have succeeded admirably!" I assured him with an air of finality.

"On the contrary, Perkins, I have failed miserably."

"Ahem!" Lake coughed with obviously pretended unconcern.

"So?" I exclaimed, "That deserves an explanation."

"Why don't you admit it, Perkins? Deep down in your heart you must have suspected that it was only an illusion."

Sceptically I thought for a moment. "I was," I admitted, "I was reluctant to believe those things which seemed to me contrary to the ultimate of creation; but in this case reality disposed of any such theories. I honestly thought that it was the end."

"Oh, I'll not deny that you were consciously deceived," said Longhorn quickly, "but whether you realized it or not you instinctively possessed an intrinsic scepticism. As for Lamar, here, he knew from the start, and actually fooled me instead. There was a time when I thought I had convinced him."

Lamar smiled. "You must accept it as a compliment, Doctor, when I openly declare that any other man but yourself should have fooled me much more easily. The reason is obvious. Anyone who knows the extent of your ability, knows there is no end to the things which it may accomplish. I did not place this remarkable deception beyond the realm of your proficiency, and therefore recognized the second and more obvious possibility. I must say that at the same time I was impressed even more so than I would have been, had this diabolical conception been an actual fact. The latter would have been another of nature's accomplishments at which I have long since ceased to wonder, by virtue of numbers, but the other was the work of men, whose powers are limited."

"But your improvised meter betrayed my secret to you," Longhorn reminded as "a creation of your own proficiency not mine. I should like to know more about this meter."

"It is very easily explained," said Lamar, obligingly. "When I at first tried the meter, you will recall, I obtained no results. 'This I attributed to the fact that the observatory, *alias* the space flyer, was moving parallel

to and at the same speed as these ethereal waves being expelled by the earth. Indeed I should have detected these waves had we been going the least bit slower, for then some of them would have passed on through the coils which I had built into my instrument for the purpose of detecting them. This hypothesis, however, is contradictory to my former theory, which maintained that these expelled waves traveled at the same speed as light, and never at any time had we exceeded five thousand miles per hour, as you yourself have confirmed it.

"Hold on a minute," cried Longhorn, "Your theory was right, your hypothesis was wrong. Like light- and radio-waves these new ethereal disturbances also travel at the speed of light. Your meter did not record these disturbances, because the walls of our space flyer, which are themselves a specially alloyed metal, are lined with a wire heavily charged with electricity for the purpose of reflecting these waves. Naturally none of them penetrated the walls to enter the room, but instead expended their force upon my machine with the result that it is no longer affected by gravity. These waves alone would push us forward were it not for the fact, that this new force exactly counterbalances the force of gravity at any distance from the earth. By gravity I mean that force which you expounded in your theory, Lamar, as being a pressure created by an act of contrary forces working upon each other.

"You at last detected these waves, after I had turned off the power and was permitting the moon's gravity to draw us towards it. Of course your ingenious meter recorded them working in a contrary direction, and therefore you could draw but one conclusion; that we were within the field of the moon's attraction, and fast approaching it far out of danger of being attracted by our own earth, which you had imagined was directly beneath your feet. What an upheaval must have been created in your mind upon discovering the truth."

The explanations which had been presented merely whetted my appetite for more and I began to ask questions.

"Since gravity was exactly balanced by these waves," I said, "what force was responsible for our motion?"

"For the purpose of returning to the earth, I have built my machine into a rocket, but as far as getting here was concerned I could have done wholly without it. When I turned the current on, the entire observatory together with its contents was reduced to a state of absolute buoyancy. Compared to the atmosphere about us, we were worse off than a cork at the bottom of a deep sea of mercury. Naturally had I left the current on full for as much as a few seconds, our space flyer would have been hurled out of control to be tossed about forever at the mercy of the universe. Within these walls, I assure you, there would be nothing pertaining to life other than four corpses, perhaps with their brains dashed out. Which reminds me that had Lake attempted an entrance as much as one second later he would have made a splendid wedge. His corpse would have been sufficient to hold the door ajar until all the air had been sucked out and we should be left to die for want of oxygen. Lake, of course, will understand why I did not wish him to return to his chops."

Lake, a trifle pale, admitted thankfully that he considered it an act of good fortune that he was not the type of chap that would have taken the matter into his own hands and gone anyway, to which we all agreed.

I continued with my barrage of questions.

"One more question Doctor," I pleaded. "Since I observe that you support Lamar's theory of gravity, perhaps you can answer this technical question. If gravity is indeed a form of pressure working as you say from the outside and generated in the manner put forward by Lamar; why should this pressure not be constant at all distances from the earth, instead of decreasing as the square of its distance?"

"A very likely question, my dear Perkins, with a simple answer. As a matter of fact this pressure is constant, but it must no doubt be obvious to you that the volume of space in which this pressure acts decreases with its proximity to the earth. It is this concentration of the forces that makes gravity more effective at the earth's surface than, for example, a thousand miles above it."

There was a pause for a moment, in which we all stared at each other, not so much from the Doctor's explanation of phenomena, as from the fact that we were slowly beginning to realize the novelty of our position. We were now upon the moon. Now we could see the earth with all its griefs and troubles practically as the moon had seen it for the last million years. There it was: happiness and morbid sorrow; good as well as evil is in mass above us, all visible together without so much as turning the head to see it. For the first time in my life I realized how minute the world and all that it contained really was.

"If there are no more questions," announced Dr. Longhorn finally, "we shall endeavor to explore our surroundings before we retire."

"Did I understand you to say, sir, that you were about to venture out?" asked Lake.

"You did," replied Longhorn.

"Begging your pardon, sir" interposed Lake, "but I am unable to recall any mention of the whereabouts of your evening apparel."

We all burst into laughter. "No, no Lake," assured Longhorn. "More than an overcoat is required for a stroll upon the moon. To protect ourselves against the intense cold, I have provided asbestos lined metal uniforms interwoven closely with high resistance wire. A battery will supply current to the wire which supplies heat to the body in the same manner as an electric pad. Fortunately, I took the precaution of bringing an extra suit, and you may accompany us."

Lake beamed his appreciation. In a short time we were standing in the airtight vestibule, of an exit which I had not previously detected, and which had been entered through a trapdoor in the floor of the dining apartment. We were all dressed in costumes similar in many ways to a diving suit, except for the fact that the helmet had been replaced by a large transparent cylinder composed of this already famous Clodian glass.

The following hour was one of the most wonderful and memorable hours of my eventful life. Our first view of a lunar landscape was obtained from a threshold, perhaps twenty feet above the ground, which again was the steep side of a mountain peak, upon which the space flyer was miraculously perched, on the verge it seemed of tipping over and rolling down the jagged sides to be dashed to pieces at the bottom.

It was sublime beyond all comprehension. Immediately we were conscious of an infinite stillness, which overwhelmed us even before we could move, and created within us a sensation of descent into eternal unconsciousness. It soon became a battle for existence. And

then I found myself talking, talking to myself in a meaningless jargon, for no other purpose than to break the intense monotony. I would have talked to my comrades whose lips I could see were also moving, had speech been possible across that frictionless void.

It was night. The sun had set many hours, if not days, before, but never had I seen a night so strikingly similar to day. Lost in a pool of star bespeckled stygian darkness, the earth floated high, full and magnificent with all the splendor of an amber ball set in a field of velvet, sprinkled with diamonds and played upon by many searchlights. As I stared at it awe-stricken I gradually picked from a sea of unfamiliar stars, due to the clearness, two familiar constellations, Sagittarius and Capricorn between which the smiling earth hovered undecidedly.

Letting our eyes fall, we beheld, in all its splendor a huge mountain range encompassing us upon all sides and eclipsed partly by two other peaks, conical in shape and similar to the one on which fate had deposited us, and towering higher and mightier than any mountain I had ever seen before.

All at once the Doctor stepped forward into that nothingness, and floated gently to the ground in spite of his increased mass, bearing a furled flag (for there was no breeze to unfurl it) in one hand, and carrying a bronze tablet in the other. We followed him.

Immediately as we touched the ground, I believe that we were all temporarily afflicted with a case of moon madness. With uncontrolled passion, the Doctor hurled his possessions from him, which fell as if inflated with hydrogen, and gathered a handful of the disintegrated rock or soil in trembling, eager hands, hurling it to the stars.

Lamar and I smiled sympathetically. These emotions were less restrained in the Doctor, for it was his dream and his success, while we could be no more than a silent audience. Compared to the man who had accomplished this great feat, we were only children.

He ceased finally, blushing, but at the same time he assumed a calm dignity which stuck to him the remainder of the hour. Lake handed him his discarded possessions, silently, as Longhorn nodded his approval, and then began the search for a place to mount them. We decided upon a rock not far from the observatory, over which we raised the small flag and against which we braced the bronze tablet, with little ceremony other than an occasional nod. Inscribed upon the tablet were the following words:

LET THIS FLAG AND TABLET EVER GRACE THE GROUND
UPON WHICH THE FIRST EXPEDITION FROM THE EARTH,
YEA FROM OUTER SPACE, SET FOOT.
MILTON CHARLES LONGHORN, PH.D
GLEN CLIFTON PERKINS, PH.D
MARAN LAMAR, B.S.C.
ALL OF NEW YORK CITY
OF THE UNITED STATES OF AMERICA
OF THE PLANET EARTH.

do hereby establish claim to the whole visible surface of the moon, and all that it contains, in the name of The United States of America, this twenty-first day of August, 19— A. D.

Before we again returned to the space-flyer, we had descended the barren mountainside and remounted it with little or no difficulty, owing to the meager resistance

offered by gravity. Even with our metal uniforms we did not weigh as much on the moon as we ordinarily did without them upon the earth.

We all returned anxious to plan our near future which we knew would be spent upon the moon.

"Wasn't it wonderful?" exclaimed the happy Doctor, once safe in our room.

"I could live here for months," I agreed, "and not become tired of it."

"If you desire my sentiments," cut in Lake, "I would sooner spend my vacation in hell. There is life in hell, but here it's worse than death. Even the very stones, sir, scream in the agony of a horrible death. I should commit suicide before very long, sir, were I ever abandoned for life in this country."

"But these rocks scream in many tunes besides death," said Longhorn, "look at this." He gently rolled out upon the table two fair sized blocks which resembled to my inexperienced eye, native quartz or rock crystal.

"Crystal!" I exclaimed, "what of it?"

"No, gentlemen, diamonds!"

"You can't possibly mean it!" exclaimed Lamar doubtfully.

Lake also sat up and took notice, his eyes bulging in amazement. "Lord, sir, where did you get them?" he exclaimed.

"This territory is rich in them," replied the Doctor. At one time the soil about here was subjected to great heat and pressure. The result was great deposits of this crystallized carbon. In fact we are likely to find rich deposits anywhere on the moon's surface, for the same catastrophe which made these diamonds possible, marred the moon's once beautiful surface all at one time."

"It is still beautiful," I asserted.

"Only in mightiness," returned the Doctor. "The atmosphere reeks with the souls of the long departed, and of those who long ago inhabited this world. Nothing can look dead that has not once been alive."

"Nonsense!" exclaimed Lamar.

"And there still are inhabitants on the other side," the Doctor continued, unmindful of Lamar's latest remark. "Hm-m-m," Lamar returned, cynically, "and what do they live on?"

"You tempt me to another bet," said Longhorn.

"I could stand another two thousand," said Lamar, "but how am I to prove it?"

"We shall go and see of course."

"Splendid!"

I smiled as I saw Longhorn and Lamar again enter a contest for scientific supremacy. So the Doctor had formulated a theory that the moon was not so dead after all. I fairly chuckled with glee, as I realized that our adventure was not to end here after all, but was to include a glorious flight into the great unknown as well. What eternal mystery did this huge lump of firmament conceal behind its satirical face. A hundred times I had made the trip in fiction, now I was to make it in reality. A hundred different theories were presented, and yet I dared not speculate. Perhaps even science was wrong. For the sake of adventure, I hoped with all my heart that it was so, and cared little for its humiliation upon again being defeated by the exploits of Longhorn.

"This time, Mr. Secretary, I shall have you sign a document before we start," Longhorn announced.

He moved to the wall-safe and withdrew a folded parchment which he commanded us to sign, exposing to our view the blank side only. He explained to us that

on the reverse side was a theoretical explanation for most of the problems concerning the moon, that had baffled science for so long. "One incident explains them all," he remarked triumphantly, "and I hope to soon prove this theory."

"The next thing on the program is to locate ourselves on the chart," Longhorn declared, as he withdrew from the same wall-safe a huge map rolled tightly upon a pole. "Before we came in I determined our latitude and longitude, instrumentally, for just this purpose."

The map we soon discovered was very much in detail, being over two yards across. It was less than a second until the Doctor had placed his finger upon our exact location.

"Here it is!" He exclaimed, "14° 25' 15" North of the Lunar equator and 11° 34' 25" East of the Basic Meridian. That places us within the crater of Erastosthenes,* upon one of its three cones, does it not? Very close to the center of its face."

I glanced over the map with deep curiosity. "What course do you intend to take?" I asked.

"We shall fly across the North Pole," explained Longhorn, "flying north along the great Apennines ridge and out over the great *Mare Imbrium*** By taking this course I believe we may come across more beautiful country, than if we should fly either East or West. At the same time I have always possessed an intense desire to fly over the poles of the moon. We shall start tomorrow at seven o'clock. In the meantime, however, I suggest that we retire."

"One moment!" I exclaimed, "I propose a toast. Out with the foam, and let's give three jolly cheers for the Longhorn expedition around the moon." A moment later four glasses melodiously touched and four throats gloriously revelled in the essence of sublime happiness. It was the eve of an adventure surpassed in excellence only by life itself.

CHAPTER VI

A Glorious Enterprise

ACCORDINGLY we rose the next morning, for such it might be called, in time to prepare a simple breakfast. At fifteen minutes to seven we all donned our uniforms and descended through a concealed trapdoor into the secret room below, which occupied all the space below within six short feet of the ground. One quarter of this space was virtually filled with a large blunt nosed cylinder. This, we were told, was to take the place of the space flyer in our journey across the moon. Across the nose was painted in bright purple letters "THE INVESTIGATOR".

"Why change ships?" I asked.

"Because, in the first place," returned Longhorn, "the larger machine requires forty times as much power to move it, and in the second place, the larger machine was designed to fly end down, while 'The Investigator' was designed to fly in a horizontal position."

"How foolish of me," I admitted, "but how on earth are you going to transport it to the outside?"

Longhorn chuckled. "No Perkins, you are wrong, I have not built my boat in the cellar this time, as you will no doubt soon see."

Vaguely through my strange helmet, I could make out the hum of the generator. A second later; he adjusted a rheostat and then while the whole tower trembled violently, one wall dropped slowly out, turning upon a great hinge at the bottom. Clamped securely to the moving section, "The Investigator" descended with it until five minutes later it lay full length along the ground.

After turning off the power, the Doctor motioned to us to follow him, which we did; out into that endless vacuum, down the sloping partition, in through the airtight vestibule of "The Investigator" and at last into a long, low, cylindrical apartment divided into two rooms by a single beaver-board partition. By means of gestures we were instructed to remove our helmets.

"Well how do you like it?" Longhorn asked, naturally enough.

We all nodded our whole-hearted approval.

"I knew you would like it," he answered, "but we must not waste our time, every second is precious."

"How are your supplies?" I asked.

"Enough food, water and oxygen for three months, however since the circumference of the moon is just a little over six thousand miles, it would not be impossible to make the trip in a week. The length of time that it will take us, depends entirely upon what we shall find upon the other side."

Unlike its parent, "The Investigator" possessed plenty of windows on sides, top and even bottom, through which we could peer without obstruction in every direction.

"Now, gentlemen," Longhorn inquired triumphantly, "are you ready to start?"

Four voices filled the small inclosure with a volley of thunder.

A few seconds later we found ourselves high above the ground, while below us the great hinged partition, slowly mounted into place. In less than five minutes we were soaring in full view of the entire Erastosthenes basin, with its rugged interior and grayish landscape, its gloom partly destroyed by the kindly light of the earth above us. Through the crystalline atmosphere an unbroken wall of sheer rock touched the roof of Heaven in 16,000 foot projections, hemming us in on all sides. Was this indeed the work of a volcanic eruption, or even less possible, was it the work of a huge meteor. I laughed to myself. Could the man who formulated that theory been here and witnessed the immensity of these craters of the moon, he would have seen something that mere figures could never show him, and would never consider such a theory.

With a machine that defied gravity and that was propelled by the powerful rocket motor, we found no difficulty in clearing the great wall with a range of fifteen miles in which to gain the desired altitude. To accomplish this feat we were forced up to the stupendous altitude of fifteen thousand feet to find when we cleared the pass that the *Mare Imbrium* was a mere eight thousand feet below us; a tremendous difference in levels.

A complete description of the twelve memorable hours that followed would require the contents of volumes. Therefore so as not to underestimate the magnificence and splendor of that glorious tour across the "Sea of Rain Storms" along the colossal Apennines ridge—a natural palisade of might and splendor—hence across the huge coronated plain of Archimedes and the equally stupendous Plato Basin, out over the "Sea of Cold" to the Northern Pole; I have decided to dispense with such an

*A Greek philosopher and student living in the 3rd and 2nd centuries B.C., from whom one of the great craters on the moon has been named.

**Sea of rain storms—Latin name for an area of the moon's surface, where there are no rains or storms as far as we know!

account lest I bore you with that which can never be completed. Some day perhaps Dr. Longhorn himself may endeavor to place the details of this remarkable flight at your disposal in his own eloquent manner, or even by means of that invaluable invention, the motion picture machine. Until then, however, we must be satisfied with those things which may be described within a reasonable amount of space, such as our adventures at the Pole, and most wonderful of all, our adventures upon the other side.

The incidents which impressed me most during the course of that awe-inspiring trip were: first the intense silence and serenity of the atmosphere; second, the slow but constant sinking of the earth to the horizon; and third and most surprising of all, the sudden appearance of the lunar Aurora Borealis around the polar regions, drowning out all but a few stars and bathing the already striking landscape in a thousand flashing colors.

It was at 87 degrees North Latitude and 4 degrees West Longitude that we at last passed over the most northern crater visible from the earth.

The north pole of the moon is situated between two lofty mountains, one of which rises seven and the other eight thousand feet above the plain. Here in their shadows, the pole, seldom, if at all, receives the light of the sun, which affords perpetual day to their lofty peaks. Here, also we completed the first great lap of our expedition, and landed gracefully and triumphantly at the north pole of the moon.

To me, the fact that we were at the pole impressed me less than the fact that we were upon the outermost rim of the great unknown where secrets, molding with age and rotting for want of exposure, had remained for God knows how long, the greatest riddle that ever challenged man. Apprehension forbade me to speculate upon the subject. Was it to be, that the hidden side would tell no more than its silent sister. A day would tell.

Lighted no longer by the smiling and comely face of our Mother World, which was supplanted by the dazzling Aurora, we raised again the Stars and Stripes, this time over a leaden casket, in which was sealed a complete account of our previous adventures, to help establish our claim. A simple ceremony accompanied our performance with thanks to our Creator and a simple prayer for the future.

We finally retired with enthusiasm.

A terrifying crash followed by confusion and chaos awakened us from slumber and placed us, without regard to life or property, beneath cots, tables, chairs, and even each other.

"Great Scott!" I heard the Doctor exclaim.

Lamar's muffled voice penetrated the gloom from a place way off in the corner.

"Something of unusual violence has just occurred," he announced.

Nothing but confused murmurs issued from Lake's direction. My first reaction was to assume that he was hurt, and I tried to recall any heavy object near him, which might have fallen upon him. I did recall one. It was a bucket of water that had been placed upon the table beside his bed. I smiled cruelly as a beam from my flashlight confirmed my convictions.

Anxious to learn what had caused this peculiar disturbance, we donned our uniforms, and sallied for the third time into the cool crisp atmosphere of eternal nothingness. By this time we had discovered that our crystalline helmets, though almost soundproof, were not

impermeable to mental telepathy, by which means, with the exception of Lake, who had not been taught control of this remarkable power, we were able to carry on a varied conversation.

Our first surprise was the fact that the ground was covered with a thin layer of frost, which sparkled brilliantly under the dazzling red and emerald Aurora.

"The little atmosphere that the moon possesses collects at the pole," Lamar explained, "because the poles being flattened are nearer to the center of gravity. Then, of course, due to the extreme frigidity of the arctic, the moisture contained in this atmosphere crystalizes and forms a frost, often visible from the earth."

On we plodded into the eerie darkness. Very shortly we beheld, but a hundred feet from 'The Investigator,' a huge glowing rock, which lost some of its lustre even as we approached.

"A meteor!" Lamar exclaimed in surprise.

"Still hot," added the Doctor, "partly from the concussion. A meteor like this, would have burnt to nothingness in the earth's atmosphere, miles before it reached the ground. I judge by its proximity to our vessel, that we have met with a narrow escape, and as many fall, we may be less fortunate later."

He chuckled to himself as we stared at our rocky intruder in thoughtful wonderment.

"It is such a lovely evening," said Lamar, "since we are all awake, I suggest that we climb yonder crater, and attempt to decipher its origin. We may come across something of interest."

We all agreed with startling enthusiasm.

"And I suggest that we name it, 'Mt. Tenonia' in honor of Lamar's home city," said I.

Lamar accepted the honor sadly for it recalled fond remembrances, to which there was no return.

Slowly and laboriously we ascended the tiny cone to its peak, about a thousand feet above the level of the plain, where we found as a reward for our adventure, nothing more than a large yawning pit, which returned nothing other than a hideous blackness in return for the light that it absorbed. The effect was intensified when suddenly without warning, the Aurora, with all its splendor, disappeared entirely leaving us to resort to our flashlights.

"A natural everyday volcano, I should say," snorted Lamar, "nothing unusual about it at all. It certainly was never formed by a meteor."

"That theory of meteor bombardment has been dropped by most up-to-date scientists anyhow," returned Longhorn, "they regard it as too improbable."

We tried to penetrate the blackness, but found it impossible even with all our lights concentrated upon one spot together, especially as not even a beam was formed through the vacuum that surrounded us. Our lights were useless until the light struck upon something solid.

Lake was more curious than the rest of us, and stepped to the very edge so that he might concentrate the light upon precipices which must have existed directly below us. In his excitement he dropped his flashlight. Almost before we realized it, in his frantic endeavor to recover his lost possession, he slipped, clutched madly at the air, and pitched forward without a sound, disappearing with his flashlight far below; while pale and stricken with terror we watched the light fade into obscurity, extinguished by we know not what.

How could we be other than paralyzed at this happening? So quickly from an expedition of joy—joy

for being alive—one of us had been taken. It mattered not to us that he was a servant. We had respected this simple man. Had he complained, when he saw total destruction to himself and the world? Had he shouted with dismay when he found himself suddenly forced into an expedition, that had it been made public, would have been unanimously denounced as foolhardy by the entire civilized world? He must have thought to himself, "I have little chance to return."

"Little chance to return," I repeated aloud, "now he shall never return."

Sadly we stumbled back to the rocket, no longer seriously attracted by the coming adventure. Longhorn and I assisted in the removal of Lamar's helmet, who had already revealed to us an ashen face, no less than the Doctor's. Both considered themselves to blame for this unavoidable disaster; Longhorn, because he was the leader, and Lamar, because it was his suggestion that we visit the summit of this fatal crater.

"It seems," said Lamar sadly, "that anything bearing the name, 'Tenonia' carries with it the curse of disaster." He was dreaming of the day when his native city of that name was destroyed in much the same manner as Pompeii, with the loss of not only hundreds but millions of lives.

As for Longhorn, no amount of cheering would change his outlook on the expedition now.

Suddenly with half closed eyes, he molded his jaw into a look of stubborn determination.

"Gentlemen," he repeated slowly, "a human life has been lost again, in the pursuit of scientific enlightenment. Let us pledge ourselves to make this expedition pay double the cost of such a catastrophe." Later, glasses touched and the three of us drank in silence.

CHAPTER VII

The Sea of Darkness

THUS begins the second episode of our glorious adventures on the moon. It was the hour of our entering into the largest area of unexplored territory, within the earth's small possessions, known to man. We had not forgotten that a life had been lost, and that Lake, a fourth member of our party, had been dashed to bits within the mouth of a volcano. Rather we were inspired to a strange revenge. It was not the type of revenge that is cursed by all good men, but it was a revenge in which we meant to force from the moon her most treasured secrets at any cost, in return for the price we had already paid. Success in the near future was the only atonement that we were willing to accept.

As we again soared into the ether, our nose pointed Southward towards the light of day, I recalled from my subconscious mind the following lines from Coleridge's *Ancient Mariner*:

The fair breeze blew; the white foam flew;
The furrow followed free.
We were the first that ever burst
Into that silent sea.

The last two lines of this simple verse represented our circumstances exactly.

I looked forward with delight upon again bursting into the long wanted sunshine, but to our surprise and disgust we found it much too dazzling and were again

forced westward into the night where we were welcomed by incessant displays of that glorious phenomenon, the *Aurora Borealis*.

How I blessed the altitude of the next great range of mountains over which we were forced to pass, for it was their altitude that forced us up to a level where we could again see the earth. We found no difference in the scenery once on the other side. Here as before we found the same ashen creators and desolate seas; the same dry soil and airless space; was there to be no relief from this monotony?

For three whole hours we plunged forward into that silent gloom, naming a crater here, "Longhorn"; a mountain range there "Lamar"; a sea yonder "Mare Perkins," and with all due respect for the recently deceased, we christened a valley, "Lake Valley." Other craters were entitled "Asperia" and "Phema," for Lamar's native country and world.

Each lumbering hour brought with it the same profound silence, with the bitter knowledge that more silence was sure to follow. Ahead of us, a mountain range, rising abruptly out of the lunar desert land, loomed higher and more mighty than any before, even than the great Apennines chain for which we held a profound respect. To clear it, we were forced to previously unencountered altitudes, since we mounted 21,000 feet to squeeze through a lowly pass. Nor was it possible to encircle this range and thus avoid it, for it stretched indefinitely in both directions. It was the first sign of any critical change in the topography of our satellite. What lay beyond remained to be seen.

As we entered the pass, flying low between two unsurmountable summits, the sight which met our eyes before us filled us with a general uneasiness. It bore no likeness to anything which we had previously encountered. For a single apprehensive moment we imagined that our Northern Lights had abandoned us to a state of wandering about aimlessly in the darkness, but a further glance at the chalky cliffs below, destroyed all such suppositions immediately. In fact from its summit to its foot on both sides it glittered like a silver spoon, but in violent contrast, the base on the southern side was enveloped by the endless shadow from which it never emerged.

A sea of ink could not have been a more impressive black. To the very horizon, where it was met by the dome of Heaven itself a full twenty degrees lower than it ought to have met it, this sea of absolute darkness, extended, unbroken by any form of light.

"Great Scott!" ejaculated the Doctor, "Eureka! Success! Once more, gentlemen, a theory become a fact." "I don't quite understand," I stammered fearfully, as I saw that no attempt was being made to turn the ship about to the safety of the near by mountain pass.

"Look! Gentlemen, Look!" he exclaimed, "Life! Air! Water! Everything!"

Again I stared in perplexed amazement down into that sea of darkness. "You're crazy," I faltered.

"Ah, Perkins," returned Longhorn, "you are upon the eve of the greatest surprise of your life; and you, Mr. Secretary, prepare to return those two Grands, I loaned you yesterday."

Lamar was even more unconvinced than I was.

"If you call that life," he returned, gazing sceptically into the abyss, "Good old Mt. Erastosthenes, or 'Jolly old Hades' in Lake's language, was life personified."

Before very long, even the mountains were lost, and

we found ourselves floating halfway between the nothingness of the universe, and that below us, which was even less defined. Occasionally I almost imagined that I saw a star beneath us, as if peering now and then from a bank of clouds.

"Are you keeping no records of our wanderings?" I cried in alarm, as I observed that there was neither compass in use, or any attempt being made to direct our course.

"It is not altogether necessary," returned Longhorn. "We have no destiny. When the sun finally rises, which it will shortly, we shall attempt a landing wherever we are, and that does not matter."

"Oh," said I, unconvinced.

During the next three hours, I cursed a thousand times Dr. Longhorn's manner of maintaining a state of suspense among his aids. To be drifting thus aimlessly, out over that vast field of oblivion, drove me to a point of distraction. No Destiny! No Retreat! Only death if we fall. "Fall where?" I asked myself. I pictured the whole expedition falling for centuries into a bottomless pit with eternal life ahead of us.

And then one by one the stars began to fade. To the east appeared that strange blueness which can only foretell the early arrival of morning, and which creeps slowly up the sky until every star is gone. Below us the darkness also faded, leaving behind it a gorgeous panorama of misty clouds, strewn literally with great patches of blue. It was miles below us, yet there could be no mistaking it, for I had seen the same many times before from the window of an airplane. The mists were clouds and the blue was sea. The moon had revealed to us, at last, her greatest secret.

As we swiftly descended, the sun itself appeared in all its golden splendor, diffused magnificently by the lucid atmosphere in which we suddenly found ourselves.

To our surprise, upon breaking through the thickly herded clouds we found nothing but endless sea. No land, island or even floating debris greeted our eyes. There was nothing suggestive of life in any way, although an endless sea was the last thing that we had ever expected to find upon the moon, and where there is water and atmosphere there may be life.

The Doctor glanced with amusement in Lamar's direction. Lamar who had for a few minutes visualized his stake being reswallowed by a smiling and triumphant Longhorn, had again assumed an attitude of confidence. So far, everything was well. Man, in order to find a suitable place to live, must not only have air and water, but land, and enough of it to be productive of all needs. Lamar instinctively knew that the diameter of this area evidently blessed with air and water, could not exceed twenty-five hundred miles, hardly enough to contain land and an ocean both, and there was no immediate evidence that it *was* that large. He was smiling.

Longhorn could not refrain from laughing. He chuckled vigorously.

"Due to the small size of the moon as compared with the earth," he began, "our field of vision is limited, to a radius of a couple of miles. Do not let this fact deceive you into believing that we have come across a second Atlantic Ocean, because we have not. We should run up against land in practically every direction, within a very short distance."

"And you knew all the time," I ventured to say, "that we should find air and water and perhaps life, on the hidden side of the moon?"

"Like most of my theories, gentlemen, I formulated this one by the process of deduction. Some would say that it is impossible to deduce that life could exist and probably does exist on the obscured side of our satellite from the few facts that are known about it, but in this they are in error. The following are the facts from which I drew my conclusions:

"First, that the moon turns but one face to the earth at all times; second, that at one time this face has been subjected to unusual violence; and third, there is no water or atmosphere, except sparsely collected about the poles, anywhere visible on the moon. These facts though widely separated and seemingly unconnected, really bear a close relation to each other.

"The first obvious thing about them is that none of them are typical of the earth. One asks himself why three such important topographical features should be native to the moon alone. If both planets were anything alike, it is obvious that both would display somewhat the same characteristics.

"Again we ask, were the earth and moon ever at any time similar to each other? This question suggests that a change might have taken place on the moon in past ages that did not take place on the earth, because at first there was some slight difference. Supposing that three changes took place, it is more than likely that they were brought about by the same cause, and were all contemporaneous.

"We shall suppose for a moment that they were, and consider anything, which could have possibly taken place, which would result in such a drastic series of changes. Almost before we start to think, an idea presents itself. Is it logical? Yes. Is it more logical than anything previously set forth? Decidedly so, for it answers three eternal riddles at once.

"Let us go back to the very creation of these two worlds, where the difference originated. We may conceive of only three different forms into which planets might eventually mold themselves. They must be either a solid mass, a spongy formation, or a great hollow shell, formed in its liquid state much as a soap bubble is formed.

"The earth is undoubtedly the first type, while the moon could be only one of the other two, for calculations by many great astronomers place the mean density of the moon at only three fifths that of the earth.

"The bubble hypothesis seemed to me the most likely, since I have always pictured the moon as being formed from a great sheet of molten matter stringing along behind the earth, when the earth was created; and finally freeing itself, with the aid of centrifugal force, and closing up in the form of the bubble. In the process of cooling, this shell naturally contracted with the result that whatever gas was trapped at the center was subjected to great pressure.

"Minor volcanic eruptions occurred over its entire surface, but as yet nothing had occurred, which would cause the upheavals which are now visible from the earth. In the case of a hollow sphere of the size of the moon, there is much danger of part of its surface caving in. Suppose that at one time this had happened on the moon; try and picture in your mind what would be the result.

"First; the entire surface would be turned into a raging hell of spitting fire, from the terrific pressure, which would be sufficient to hurl tons and tons of molten matter miles into the air, to form, in the end, the huge craters

which have impressed so many earth astronomers. Had not this terrific pressure found many openings, the moon would no doubt have been blown to fragments, and the earth would have been forever blessed with rings like Saturn.

"Again the center of gravity would be displaced from the center of mass, and the hollow side being by far the lighter, would naturally turn itself always away from the earth. The third and most important change took place, when all the air and water seeking a lower level, gravitated into the hollow and made it the habitable place that it is to-day.

"The fact that we have not found inhabitants does not say that we shall not. Man is the product of environment and not coincidence as some would suppose, and we shall no doubt find him here, as we would on any other habitable world. There are few conditions under which man cannot survive, and these are extreme hot and extreme cold or of course a lack of atmosphere. All planets must, in the course of a million million years or more, pass through all stages."

"And how deep is this 'collapse?' " Lamar asked. He was plainly interested.

"Approximately seventy-five miles," answered Longhorn, "which is in every respect according to my theory. A mean depth of seventy-five miles over a cavity such as this one, which is 2,700 miles across, explains the difference in mean density between the earth and the moon. Astronomers, who do not suspect this cavity naturally include this hollow, which is nothing but atmosphere, in the total weight; and finally they come to the conclusion that the matter which makes up the moon can only be three-fifths the density of that of the earth. This would practically make it a liquid mass, when as a matter of fact its substance is composed of a matter as solid, if not more so, as that of the earth."

"Incredible!" exclaimed Lamar, more to himself than to us. He paused thoughtfully. "By heaven, it would have to be seventy-five miles deep to fill the hollow at the center, wouldn't it?" he said.

"I have here a diagram, which shows exactly what happened," said the Doctor. "It is upon the same piece of paper upon which, you gentlemen, placed your signatures a while ago. I had you do this so that there would be no suspicion that I developed my theory after our arrival."

Drawn upon one side was the following explanatory diagram:

Cross sectional drawing illustrating the great collapse as viewed from the North Pole. Diagram slightly exaggerated to show clearly every phase of the catastrophe.

"But this morning, Doctor," I remonstrated, "when daylight appeared, we found ourselves hardly two miles above the sea. How did you manage such a perilous descent, if indeed it is as high as you say, in such a short time, and in such absolute darkness?"

"My dear fellow," he replied impatiently, "during our entire descent, my eyes were never at any time removed from these meters, all exactly alike, which kept me constantly informed as to our exact altitude. If one began to work imperfectly, by comparing it with the others I could correct the error and thus I avoided all danger of striking the bottom unexpectedly. Here again is proof that I was prepared for this descent."

CHAPTER VIII

The Blunder

FROM then on we all kept a constant lookout for any form of land. Strangely enough we had all temporarily lost that sensation of isolation and loneliness that a planetary expedition bestows upon one, for there was nothing in that perfectly natural ocean, and in that clear cerulean blue above us, that did not appear exactly as our terrestrial seas and skies. However we were ever conscious of the horizon's strange proximity to ourselves.

Presently, true to our expectations, we sighted land; a long blue strip, which soon proved to be heavily forested and uncut. However we were not greeted by any form of animal life whatsoever. At length after cruising the coast line for two or three miles we came across that for which we were searching. Hidden securely within a shallow bay, and embraced liberally upon all sides by the arms of nature, was not a single isolated hut or cave in which some prehistoric form of man might thrive, but instead there was a large town, which, had it shown signs of being well on the road to civilization, we might have easily termed a city.

The houses were small and unattractive, being chiefly of the two story, yellow, baked clay type; box shaped and collectively reminiscent of the old North African seacoast town. There appeared to be no particular order in which they were arranged, and in fact one would find difficulty in calling even the space between them a street or avenue, for no street continued for more than two houses the same width or even in the same straight line. Nevertheless it was a welcome sight to all of us.

"I give up," said Lamar resignedly. "Longhorn, you are the most omniscient being I have ever had the fortune to lay my eyes upon. You know everything."

"I fear that I must accept your compliments without accepting them literally," the Doctor smilingly demurred. "My chief ambition is to learn, and I still find the universe, and even my own back yard, a fertile field in which to work. I always shall, for to know all would soon prove dreadfully boring."

The Secretary finally agreed. He looked long and thoughtfully at the striking landscape below him, with its curious little yellow houses, treeless sunbaked streets—and in silent contrast—the rich blue white capped waves directly below. Small brightly painted sailing craft wove in and out through the mist, which had not as yet arisen from the water. From the horizon, the sun cast long almost invisible shadows over the water.

As we circled the town, many curious faces looked upward; there seemed to be a great deal of running to and fro, and I believe that had we been a little closer we might have heard much shouting. At last we found a suitable landing place, in the only space that did not seem to be obstructed with houses, and which, in all probability, was to these simple people, what a public square is to our small towns. A small boy wandering across the center, regarded us curiously for a moment, and then set out as fast as his legs could carry him to the protection of his mother's skirts.

Even before we had sufficient time to alight, from every nook and corner as if suddenly produced from the fourth dimension, twenty men, all dressed in bright red and green, and bearing huge bows with which to shoot

sharp pointed arrows, progressed swiftly towards our intended landing spot, surrounded us and stood silently aiming arrows from drawn bows at our machine.

"Not so friendly, are they?" remarked Longhorn.

"No," agreed Lamar, "but perhaps we can come to an agreement if I teach their leader mental telepathy. After that we may all converse with him."

The attempt was made without success, for the chief, being thus approached by he knew not what, would have dropped his bow and run, and would have done so, had not his followers been watching him with anxious eyes.

"Perhaps if we venture out, we might coax them to lay down their weapons," Longhorn suggested.

"Guns?" I asked, holding up a revolver, "We may need them."

"No of course not," Longhorn rebuked, "Peace can never be reliably secured at the end of a revolver. We must go unarmed."

The lunar atmosphere, we found, was cool, clear and refreshing, especially since it was still early morning. Unburdened by our uniforms we were scarcely able to resist flying off into space with every step for want of gravitational attraction. As we stepped boldly out into the open for the first time, one frightened Bowman, whether purposely or by accident, let fly his arrow, which passed miraculously between us and rattled metallically and harmlessly off the side of "The Investigator." Such was the reaction upon the other archers that, had not the leader intervened immediately, the tale would have ended here.

In vain we signalled for peace. For a moment we thought that we had succeeded, when in response to a command from the leader they all laid down their bows, but to our dismay it was merely to attack us in a different manner. Before we could speak or move, we suddenly found ourselves pressed in upon all sides by a flock of angry Lunites.

"Jump for your life!" commanded Longhorn, desperately. "All hands to 'The Investigator!'"

We did so without hesitation, and much to the surprise of the angry archers as well as of ourselves, due to our superior strength in our new surroundings, we leaped high out of their reach and down beyond them. All would have been well had not the last of a long series of involuntary somersaults, in every case, terminated hopelessly unfinished, leaving us again at the mercy of our enemies. Before we could again seek safety we were overpowered, and our hands being tied, we were blindfolded and led, the Lord knows where, to the silence of a large room, reeking repulsively with the odor of mouldy stone.

Our eyes were freed and we found ourselves confronted with king, judge, or officer, we knew not which, who was seated behind a heavy stone table, garbed in robes and appearing exceedingly stern and unapproachable, in accordance with the atmosphere about him. As the chief Bowman's heels clicked on the cobbled floor, he obeyed a command which left us alone with the magistrate. The bonds which tied our hands were not removed.

Lamar then lost no time in teaching him the ways of mental conversation, and within a very short time, for he accepted this gift with surprising enthusiasm, we were to learn our fate in the king's own words. Lamar spoke first.

"What offense have we committed," he asked, "to be thus treated by your people?"

"Know you not," demanded the king sternly, "that you have trespassed into the land of the Mortars?"

"We have come upon a friendly mission," retorted Lamar, hotly, "and we demand due courtesy from your subjects and an apology from yourself for the way that we have just been treated."

"You have not only trespassed into the land of the Mortars, uninvited," explained the king with a shrug, "but you have brought with you a flying machine, the most cursed of all machines made by the Evil Spirits."

"But this is all foolishness," returned Longhorn, who was not as yet aware of the ignorance that he was facing. "We don't know what you are thinking, but whatever it is, it is wrong. We are visitors from a world far distant from your own. We come from beyond the great precipice——" He was not permitted to finish.

Suddenly the king stood up, his eyes flaming with fear and anger.

"You came from beyond the great wall!" he exclaimed hysterically. "Then indeed you must be from Hell itself! Fiends! Dogs! Begone! The penalty is Death!"

His command was followed by the sudden appearance of the twenty or so archers, who again blindfolded us and took us out into the open. I could not resist kicking the nearest individual in the shins, who turned out to be the chief, who howled for a moment in pain, ordered my feet tied also, and I was dragged the rest of the way.

When our eyes were again uncovered, we found ourselves locked in miserable little cages, unworthy of the habitation of monkeys, for they were placed one above the other, and were constructed so that it was impossible to stand in them. Thus we were forced to sit like crated chickens, each one in a cell so dank and musty, that we were frequently obliged to sneeze, much to the delight of our jailer. He was a crouching runt, slightly hump-backed, with a low slanting forehead, over which huge mats of cotton like hair drooped like wet rags, concealing, it seemed, all but the ugliest part of his features.

I considered myself fortunate in being placed in the upper of three cages. Its advantages were lost altogether however, when we all took to smoking cigarettes for a pastime, for I, being as I have said, on top, received most of the smoke.

"A fine mess we have got ourselves into," declared Dr. Longhorn disgustfully. "Who could have supposed that such ignorance could exist upon any world? Civilization, Bah!"

I looked down and could just make out his dim figure, crouching in the bottom cell.

"There must be some way out," I rejoined. "Such ignorance could hardly be credited with the constructing of a fool-proof jail."

"Our situation," Lamar remarked, "is similar to that which a Lunite might have encountered had he visited New England in 1690. Any wretch who claimed ancestry among the people of the moon in those days, would have been convicted of witchcraft and burned at the stake without mercy."

Strange food was finally brought to us, and once every ten hours, the equivalent of a Mortar working day, thick leather mats were stuffed through the bars of our cages upon which we were to rest for the following eight hours, when they were taken away again.

We had exhausted all conversation during the miserable first hours of our imprisonment and had consumed nearly all of our limited supply of cigarettes, and for the most part we resorted to thinking. Even this became bor-

ing. To one who is accustomed to action of the swiftest moving type, confinement of any kind for any length of time, stands upon a level with murder. At the end of five hours I was desperate. I began to count anything and everything within my field of vision, which was little, and included all the bars of my miserable little cage, the stones in the wall across the way, and even the rats and cockroaches which weaved their weary paths, so it seemed, in and about the cold dark floor. I recall to this day, after numerous counts, that there were twenty-six bars across the front of my cage, three hundred and sixty-seven sandstones on the opposite wall—counting one broken out and replaced with a mat of mossy earth—and in all thirteen rats—, as for the cockroaches, I had no way of distinguishing them one from the other, so I left off counting them in disgust. I noticed after a time that Lamar and the Doctor were both silently employed at the same useless occupation.

Twice during those lonely hours the monotony was broken by a violent thunderstorm, which raged about our tiny window, and all but threw the room into darkness.

How we finally welcomed those sleeping mats, to find that they were almost as hard and useless, as the cage-floor itself. The next morning, if such it may be called in a day that lasts approximately fourteen days, as time is measured on the earth, we found no relief from our condition, nor was there any action upon the part of our jailor to suggest a possible release, even to be burned at the stake.

On the contrary another victim was admitted to our unhappy circle, looking none the worse for a fierce struggle, and was placed in the cell directly adjacent to that of the Secretary, who was directly below myself. To us he was a Godsend, for he was bound to offer us strange company, and providing that we could force him to speak, we could expect strange tales; but to him it must have seemed, as if he were being tossed into hell itself.

He was a powerful man, with strong features but slightly strained by his recent experiences, and he bore the appearance of once holding a position of great importance among his people. We knew that he was not a criminal. By his high forehead and dark hair overshadowing intelligent gray eyes, we knew him to be of a different race than that of his captors. As he first approached he was rudely shoved in, but he entered his filthy cage upon his own will and with much dignity. It was a long time before he became accustomed to the feeble light and was aware of our presence.

He immediately attempted conversation and was surprised to learn that we could not understand him. Lamar lost no time in teaching him the invaluable control of mental conversation.

"Strange," he responded. "I feel your thoughts being impressed upon my mind as you speak, as if you could speak the language of the Rionians as well as I. Who are you stranger? I perceive that you are not from my own land or from any other that I may have acquaintance with."

Lamar proceeded to enlighten him with a brief account of our adventure from beginning to end, while he listened with much astonishment and cried out many times in surprise. At times, we could see by his face that he was extremely perplexed, but never once did he interrupt. At the conclusion he answered:

"Indeed you may well curse your miserable fortune," said he, "for had you ventured a little more to the south-

ward, you would have stumbled upon Rionia, my native country, where you would have been welcomed by everyone. By what fortune, it is only for the devil to answer, you were carried to the single point upon the moon's surface, where you were the least welcome of all, an island avoided fearfully even by the many Rionian merchants, who find it necessary to pass very close to it.

"These have been obsessed for centuries with a strange superstition, which at last after so many years has become instinctive. They will have nothing to do with modern machinery, will fight it with their life's blood, and will kill anybody that has had the least connection with these mechanical horrors, which they deem the invention of the devil. No one is safe who does not belong to their miserable race. Every now and then some poor being finds his way to these cursed shores, generally because he is shipwrecked, and from then on his life is not worth the weight of his finger in lead. Few are ever heard of again, and it is rumored, by those that have in some manner escaped, that each year they devise a new manner of putting their victims to death.

"Such has been my fortune. While we, my crew and myself, were cruising the seas in my private vessel, we, due to my inexperienced pilot, ran upon a rock, where, lashed by the fury of the storm, the ship sank almost immediately with all aboard except one other individual, a deaf and dumb man, whom we picked up along the great wall, and myself. He managed to seize upon a floating keg, which he had difficulty in maneuvering, but I being more fortunate located a raft, and was washed upon this island, toward which, I swear, every current on the seas is directed. I fought my captors desperately at last escaping into the woods, but the fiends hunted me down with bloodhounds."

"You speak of cruising in a private vessel," remarked Longhorn, "were you a merchant?"

"Oh, my no," returned the stranger, "I am the President of Rionia."

"What!" exclaimed Longhorn, "then by Heaven the whole Rionian Navy will be here to rescue you."

"If they find us in time," replied the President without emotion, "we can only hope for the best. My release of course means yours."

We all thanked him personally.

"How will they come," asked Longhorn, "by ship?"

"More than likely by air, if they come at all, for there is no reason to suspect that I am here, more than in any other place. It may be days before they think of looking here, and by that time we shall be nothing more than a memory."

The thing that attracted Longhorn most was the fact that these Rionians possessed airships, a sign of a fairly advanced state of civilization. However, our hopes were high on the other things that he had spoken and we all gave acclaim for the Rionian Navy.

"And this great wall that you spoke of," reminded Lamar, knowing that the Rionian President was referring to the cliff, which separated one side of the Moon from the other, "has no one yet scaled it?"

"Never," replied the other, "but the project has often been considered. Men have wandered up its rocky sides as high as five miles or more, dressed in special suits, but in every case have been forced to retreat, either because their oxygen supply failed them or the steep icy sides forbade further progress. It humbles us, that beings like yourself have entered from above, even before we of the lowlands have managed to climb out. No one on

the moon has ever seen the other side. We wonder what it is."

"If we ever manage to escape," agreed Longhorn, "it shall be your privilege with a guarantee for a safe return."

The Rionian's eyes brightened at this and he thanked us. A suggestion from the Doctor started us all working desperately trying to loosen the bars, but we soon found with the exception of a single bar, that they were firmly imbedded in the stone. The loosened bar unfortunately was one of the twenty or more bars that separated Lamar from the Rionian.

Again we were furnished with mats on which to sleep, and for four hours we were lulled by a thunder storm, which roared so loudly and dropped such torrents of rain, that it was impossible to secure the necessary sleep. The next morning, which occurred many hours after the lunar day had set in, we were awakened by people screaming and shouting, running and hurrying about in the village streets, and with the possibility suggesting itself that the commotion might have something to do with our execution, we became anxious to see for ourselves what the disturbance was. The case seemed hopeless. As I have said that the only window in the place was five feet above me, and certainly out of my reach, it is clear that vision was impossible. But was it though? It took the President of Rionia to find a solution of the problem.

Triumphantly he drew from his cloak, a large mirror which he informed us he was accustomed to carry; removed the steel bar which we had succeeded in loosening, and handed the two implements to me at the same time pointing to my shoe laces. I understood. By tying the mirror to the end of the bar with my shoe strings, I could, by reaching through the bars above me, observe in the mirror what was taking place outside. It was a simple and useful invention. I smiled to myself as I raised the bar triumphantly upward, wondering why I had not thought of this before.

After some adjustments were made, I was finally enabled to see quite well in this periscope, what was taking place without the jail, but that which I saw tore my fast beating heart cruelly. I nearly shrieked with rage as I perceived that the trophies which the townspeople carried on high as they shouted themselves hoarse, were the ten thousand or so parts of "The Investigator," disembodied. Our last hope forever destroyed.

"The Dogs have demolished the rocket," I cried, half choked with rage, "their filthy hands have torn it to atoms."

"What!" Chills ran up my spine as the Doctor slumped silently to the floor. Lamar's eyes bulged pitifully. Realization swept over him just a little more slowly than it had over the Doctor. By their actions, I knew that I too had not fully understood the significance of what I had seen. We forgot the stranger. We forgot everything. But had we turned to him, we should have found him smiling sadly at our predicament.

With forehead, cold or hot, I knew not which, and with sweating trembling hands I dropped the iron bar helplessly to the floor of my cage. The loud metallic ring which it produced, filled the tiny room with a sound almost unheard, but at the same time it conveyed to my benumbed brain a new thought.

The jailor would be along soon for the purpose of throwing us to the mercy of his ignorant tribe. Perhaps he had heard that sound and would be suspicious. Before

I realized it he was standing below me with grinning, evil eyes that looked forward to our coming ordeal with inhuman delight.

Half blind with anger, I raised my iron club high over my shoulders, mirror and all, and with all the strength I could muster which was more than enough, I brought it down upon his ugly skull splitting it open so that the blood soon dyed his hair a filthy crimson, clotted there and forming an impassable barrier for all that was to come. With a heavy thud he slumped to the floor. Increased shouting, announced that the drunken merry-makers were even now at the door. Quickly Longhorn tore the crude keys from the jailor's belt, and while ages passed by upon which our safety depended, he sprung the locks which were to set us free.

From a heap of similar bars bundled together upon the floor, obviously for the purpose of building another cage, we supplied ourselves with weapons. Being seemingly light in hands accustomed to lifting weights upon a world four times as large, we seized one in each hand, and stood breathlessly awaiting the invisible fury.

Would we ever be able to beat our way through that angry mob to safety? Each one of us, it is true (except of course the Rionian) was three or four times stronger than any one of our opponents, but they outnumbered us a thousand to one.

"Remember to keep your feet on the ground," warned the Doctor, "for if you fall it will be the end."

"Remember 'The Investigator!'" Shouted Lamar, angrily.

Those last words bit into us like steel into butter, and from then on our battle cry was, "Remember 'The Investigator!'"

They came. Unsuspectingly they rounded the corner that separated the corridor from the cell-room, choking the passageway, waving their scraps of refuse, and shouting thunderously. All were possessed with an inhuman lust for destruction. A single word may have been their sole inspiration. The word grew to a shout; was passed from person to person, and before they knew it, or whether they knew it at all, they were screaming and shouting in a furore of rage; urged on by the cries of their neighbors, until what had been harmless applause had grown to cries of murder.

It came as the tide, mounted to a high crested, frenzied paroxysm; and then gradually it rolled and lulled—mounted and fell again, while only the ghostly echo remained. They stopped as if held by an invisible hand; saw us standing there; saw the bloody lifeless form at our feet; saw our sweating faces flushed with rage; and, whether by word of mouth, by hand, or by instinct, their new discovery was passed down the corridor, on out into the street, until by the time they were ready for their murderous charge, half the city had been informed that something was amiss.

Scarcely had the old echo died when it was succeeded by ear-splitting cries of a new rage, and all at once the mass surged forward, driven by a mad desire to murder. It was terrifying, pitiful and fiendish. It tore our hearts in every direction, but it was a duel for life, and nothing, not even our terror, was to stand between us and our equally mad desire to exterminate the miserable race that had caused us so much unnecessary trouble.

With a whoop and a battle cry we charged forward, into the boiling mob, beating them down as they howled with rage and pain. Those that we stepped on gnawed at our legs, while those, who had no room to fall, were

pushed between us to make way for those who had not yet felt the bitter reward of conflict.

They were children beside us, but far from being invalids. Before we had gained the corridor leaving scores unconscious behind and beneath us, we had received a proportion of punishment, that did not leave us far short of an early defeat. With grunts and groans and an almost inhuman effort to keep our feet under their staggering blows, we continued our wholesale slaughter, now weakening, now angered by an exaggerated show of maliciousness, to at last discover that we were breathless and exhausted. Seeing that we could no more swing our clubs, we hurled them with a last frenzied effort into the confused crowd, with astonishing results. Those in the front row fell; those directly behind stooped because they could not fall, while those in the third row stood suspended between the fallen mass and the countless hordes pushing from behind. But for this obvious state of confusion, we might have been overcome at this very moment.

The crisis came at last. The granite wall in front could no longer sustain the pressure from behind, and with volcanic violence it burst, causing those beyond to be helplessly vaulted through as if shot from a sling. In great confusion they tumbled over each other, crawling and squirming about like a nest of scorpions and clutching at each other desperately for support. Still driven by that same mad impulse to annihilate our oppressors, we, each singled a victim from the seething mass, dragged them forth by their legs and swung them lightly about our heads as cudgels, knocking down, as we did so, ten or fifteen victims before our weapons became too limp and lifeless for further service.

All those that were at our feet were not dead, however, and although an attack from below might seem to the reader disadvantageous, they succeeded in sucking us down while we desperately kicked, leaped, stretched, and twisted to avoid the irresistible force from below. Once down we were entirely at the mercy of our captors, who, while we continued the fight, managed to seize, bind and gag us (a foolish precaution, for, even had we shouted to the clouds, there was no one within a thousand miles who could do us any good.)

We were next painfully conscious of being hauled through the crooked waylets aboard a dog cart, amid the shouts and jeers of the townspeople, much to the joy of the children who were allowed to heave stones at us along with their parents. In that way the dog became a martyr to the cause, for the stones, being hurled before the cart to make certain that our forward motion would place us directly beneath the stones when they fell, more often struck the dog.

The sky contained none of the promised airships, nor was there any visible indication that it ever would. Ahead of us, standing boldly out in the center of the open square was a flimsy construction of wood, shaped like the letter "E" placed upon its face, and which, because of four looped ropes hanging suspended from the upper cross-beam, we mistook for a form of gallows. Later, closer scrutiny revealed that the ropes were for hoisting us up, and submerging us each in one of four huge caldrons of boiling water, steaming amidst the flame and smoke of the burning remains of "The Investigator."

As we were dragged bodily from the cart, our feet were untied and we were led, each, to a position below one of the four ropes, the loops, of which, were passed tightly beneath our arms. And then while the king ad-

ressed the howling mob in honor of the occasion, and strange undeveloped musical instruments strummed most unharmoniously, the death pot bubbled beside us. It was a matter of seconds now until we were to be hoisted and submerged simultaneously in the seething liquid. Was there yet a hope? For a brief second, it suddenly occurred to me that the thin atmosphere might allow the water to boil at an endurable temperature, but a brief mental calculation showed me that it would boil at, at least, 185 degrees Fahrenheit, a temperature which would only serve to prolong our death.

The repulsive fact, that we were to be boiled alive, did not incense me nearly so much as the fact that ignorance in all its fiendish forms should triumph in its diabolical endeavor to destroy the science and learning that countless centuries had implanted in the being of Dr. Longhorn. That it was all to be wiped out in a single blow, just when success seemed so near, riled me to desperation. To get at those devils for a single second and crush them beneath the impact that only hate could produce; not against the people, but against the mighty destructive force to which these poor wretches were constant slaves—against ignorance!

The ropes tightened. We were leaving *terra firma* for the last time, and the more that I tried to imagine that it was all just a horrible nightmare from which I would soon awake, the more audible the bubbling of the water became, and the more intensively I felt the warm steam upon my face and the smarting smoke which blinded me. Why were they raising us so slowly? Was it to add an additional mental torture to our sufferings? Why did they not do it quickly and end it all for ever? I became realistically conscious that, for the first time since our desperate attempt to escape, they were all in a state of morbid silence, and whatever was the cause, it could not have paved the way more appropriately for the startling contrast that was to follow.

Crack! Crack! Crack! Like pistol shots, three sharp explosions bit the silence in quick succession. The crowd was instantly petrified, unable to decide whether to be terrified or stupefied, while those appointed to hoist us to our destruction, stood in an embarrassing inclination to let us drop. A fourth shot decided the matter. With one accord the entire congregation melted like dew, leaving nothing but a remembrance of their being in a long sustained echo hanging like a cloud over the abandoned market place. We fell like feathers.

"Eaghe uh-h-i us?" said Dr. Longhorn through his gag, and then remembering that he could communicate all that he had to say to us by means of that invaluable agent, thought projection, he asked us the only obvious question: "What in creation caused those shots?" he exploded mechanically.

We all looked perplexedly in the direction of the sounds. The whole story was revealed in a single glance. Piled haphazardly upon the debris were the burning stocks of six rifles, with muzzles projecting skyward, two of which vomited smoke and filled the market place with further echoes even as we looked. We recognized them as part of our own supply of firearms, whose properties were evidently unsuspected by the Mortars. Science had triumphed again by a practical application of physics, just when it was needed most of all.

As if in answer to these reports, three thundering booms rolled down the wind toward us from the sea, shaking the street beneath us convulsively.

"What was that?" Lamar telephoned.

The President seemed strangely excited. "The Rionian Navy!" he answered. "Make for the sea."

CHAPTER IX

Under the Sea

WE were running, now, through the streets, but with great effort, for besides being sore all over as the result of our recent conflict, our hands were still bound to our sides and our gags were still sure proof that we would not speak. It was not until we had felt our way through the maze of dwellings, and blind alleys, and had at last found the sea that our bonds were removed. Hardly had we reached the beach, when we were met by an advancing avalanche of men, uniformed in bright yellow, waving shining weapons that glistered in the sun-light, and shouting tumultuously, as if shouting could possibly affect the results of their mad charge into that apparently empty town. Except for four of them, who acted as a running escort, the rest paid as little attention to us as we did to them.

Towering majestically out of the water by the hundreds, were huge submarines, seven times as large as any I had ever seen, and all contributing generously to the charge with double files of men pouring madly forth from every conning tower. Half way to the nearest of these we were met by an officer in red uniform, who, also running beside us, ushered us down into the interior between the advancing files, down a pair of metal stairs, and finally into the interior of a room, that humbled even a palace reception room.

The President's gag was removed instantly.

"Is Hi Ming aboard?" he asked in a manner that we could understand even though he spoke in his own language. "Here you, untie the bonds of these men; you inform Captain Ming that I am ready to receive him; and you"—pointing to the officer that had just acted as our escort—"see that the ship shoves off as soon as we dispose of the men."

There was an immediate rush to obey orders.

The room, in which we found ourselves, was pleasantly large and except for the effect that the unusually low gravity had upon us, we should have been conscious of an overbearing heaviness about it, for it was entirely of metal, even to the etchings upon the wall and the flowers projecting singularly enough, out of a Chinese vase, or at least one so like it that we could almost imagine that we were back upon the earth. The vase being of alabaster was an exception as were eight heavy mirrors that decorated the panels. Other decorations were chiefly in silver and brass as were the elaborate light-fixtures.

"Hi Ming is Prime Minister of Rionia," the President informed us, "that is he is my chief adviser." And then changing the subject quickly, as if Prime Ministers had anything to do with chairs, he asked us to be seated, apologizing, as he did so, for their hardness, stating that it was a military custom.

We were ill at ease in appearing so ragged and dirty while meeting the cabinet of a great country, but we were presently assured that it would make no difference.

"He is not only my adviser," explained the Rionian President, "but my personal friend, so that you may rest assured that our clothes will not be noticed. Hi

Ming judges by the person and not his garments. I wonder what is keeping the fellow." He impatiently pressed a button on the top of his desk, a bell tinkled musically somewhere off in the distance, and an attendant appeared shortly and saluted.

"Is Hi Ming coming?" demanded the President severely, more to himself than to his servant.

The servant indicated with a nod that he was and stood by at attention while out of the darkness, the Prime Minister, himself stepped briskly into the room, seized the President suddenly in an embrace of welcome, and after kissing him lightly upon the forehead, engaged him in a conversation of short, pleased ejaculations.

Hi Ming had already struck us as Chinese by his name. Now standing before us in person, he impressed us even more as being such. His costume doubtlessly bore a close resemblance to the Chinese mode of dress, and there was no mistaking the transcendent, solemn features of the oriental.

Then came the greatest surprise of all. Turning, the Rionian addressed us in clear unadulterated English with the following, startling announcement: "Gentlemen, may I have the pleasure of introducing to you, Hi Ming of China, Prime Minister of Rionia, and Ambassador to the earth. Captain Ming, these are Americans (calling us by name) who have just recently arrived by rocket. Am I not right gentlemen?"

"China?" We all gasped simultaneously.

"Americans!" Exclaimed the Chinaman, rather dropping his voice towards the end then raising it. "They are indeed a remarkable restoration of Americans, if not the genuine persons. America," he mused softly, "the home of the true adventurers."

"Give them the world to wander in. Fill it with countless wonders and novelties, and still they are not content to remain at home. One may wander eight thousand miles from home without once leaving the ground, and spend a life of wandering without crossing the same point twice; yet he must needlessly construct a machine in which he might leave his world behind him, perhaps for ever, searching for trouble, as if there were not troubles enough upon the earth." In spite of the seriousness of his manner, one could not fail to recognize a strain of humor in his voice.

"For that matter," replied Longhorn, "China is neither a bothersome country nor an angel's paradise, what brought you away from home?"

The Chinaman laughed good humoredly. "True, my friends, I have often wondered myself, but be that as it may I can honestly state that I have never regretted it. Again, it is true that I have spent five of the happiest years of my life here, and yet I would give ten others but to visit my earth once more, as wretched as it is. Since the first moment that I recognized you as Americans I have hoped upon hope that your method of crossing space provided for your future return, so that I may accompany you back."

"Have you no means of returning?" the Doctor demanded in surprise, which needless to say bordered upon alarm.

"Most unfortunately, my machine was destroyed beyond repair when I first landed here. However, if you say the word we shall see that yours is brought aboard. Is it on the island?"

"Destroyed also," replied Dr. Longhorn sadly. "Not in landing, however. The fiends who occupy that island

ture it limb from limb while we looked on powerless to stop them."

"I had suspected as much, so I was well prepared to be disappointed." He paused. "If you wish you may go now and refresh yourselves. You will be supplied with clothing and a bath, besides food and a couch if you wish to lie down. Afterwards call, and I will have an expert physician dress your wounds. Later, perhaps, we may devise, among us, a means of return."

Five hours later, for we also took advantage of the opportunity to sleep, we found ourselves dressed in the Rionian civilian clothes, which we need not take the time to describe, and feeling a thousand per cent better, being no longer conscious of our many, previous discomforts. We were met immediately by Hi Ming, Sir Mioga—which by the way was the President's real name—and Sir Dernal, the officer of our previous acquaintance.

"We shall first inspect the ship if you wish?" said Captain Ming, "after which we shall proceed with our evening meal."

In brief, the submarine was the most complete trans-oceanic liner that I had ever had the fortune to inspect. It was a full five hundred feet long, about seventy-five feet in breadth across the middle, and was divided from top to bottom by five decks. On the lowest deck were located all the generators and machinery, upon the second were located the sleeping quarters of the crew, and upon the third those of the army to be transported from one nation to another. The fourth deck contained the kitchen, the dining room, and also a huge auditorium in which the army could be entertained en route. The top deck being much smaller than all the rest contained only the torpedo room, the officers' cabin, and that of the pilot who was guided by a periscope in shallow water, but depended entirely upon a compass in deep. This remarkable compass made a perfect graphic record of any deviations in the course along with the amount of time spent off course, so that the pilot could, by first glancing at the chart, readjust his course with startling accuracy.

"Surely you did not build these huge vessels for a war with the Mortars, alone," I ventured.

"Oh my, no!" laughed Sir Mioga. "As a matter of fact these ships are left overs from a war that took place five years ago with the Turlons, a powerful race of people north of us and separated from us by at least eight-hundred miles of ocean. Naturally, of course, a large per cent of the war was fought upon the sea, which necessitated the building of an incredibly large navy. We finally won the war, because we were the first to use the under-water method of transporting troops, the Turlons being unaware of our scheme until we had actually landed our troops upon the other side. The war ended immediately when they saw that we had the advantage over them and we accepted half of their possessions in payment for damages.

"As for taking over a hundred ships to the isle of the Mortars, we did it merely to give our dying navy an opportunity for action, and to frighten the enemy. We have already received word by radio, that the island had surrendered without resistance."

"But if they were such a devilish tribe and so easily captured," I asked, "why then have you waited so long for war?"

"Because in Rionia," he answered, "war is declared by the people and not by the government, unless we are

invaded, under which circumstances the government may declare war. Unfortunately the women of Rionia, consisting for a large part of sentimentalists, are permitted to vote upon this issue, and the bill has never successfully gone through. However, when it was learned that I might be a prisoner there, Captain Ming did not hesitate but sent the navy without declaring war. The Mortars were unaware of this, and thinking that we had made such a declaration, surrendered on fear alone. It was a piece of remarkable strategy. The government has planned many times to do this, but could not find an excuse for transporting the navy that would not be opposed by the people."

Later, we were escorted to the President's private dining-room in which we were seated, the President and Hi Ming at opposite ends of a small oblong table, with the Doctor and the Secretary upon one side and Sir Durnle and myself upon the other. Having ascertained that we were all perfectly happy, President Mioga suggested that one of our party should relate the story of our trip, to Hi Ming.

"And perhaps," he said, "Sir Lamar will project his thoughts into Sir Durnle, for unfortunately he does not speak English, and he might find your story of interest.

"Mental Telepathy!" Exclaimed Hi Ming with that same characteristic drop in his voice that we had noted previously, "who possesses this remarkable power over the mind?"

"I do," Lamar replied willingly, "I shall be pleased to comply with Sir Mioga's request."

"Then my previous suppositions were not wrong," returned Hi Ming mysteriously, "Sir Lamar is not an American."

We all turned inquiringly toward the Chinaman, who had, in some mysterious manner, stumbled upon the real truth. It had not been our immediate intentions that this fact should be known as we wished to avoid discussing that subject which we knew to be closest to the Secretary's heart, and he himself had told us that he always wanted to be recognized as an American, now that he was forced to live upon the earth. He wished to forget the world that had been at one time so dear to him.

Hi Ming, himself, was visibly annoyed. "Mental Telepathy," he explained, "is a jealously guarded secret among the Chinese, and it fills me with great surprise to see an individual, who is blessed with this highly useful power, behave in such a liberal manner concerning it. However since it is no longer a secret, at least among the people of this gathering I shall be pleased to explain it as a physical phenomenon.

"In every human being there is a tiny cell in the brain, whose properties have remained unsuspected by most of the civilized branches of humanity, chiefly because—though at one time every one realized this power—man has since depended upon words to express his thoughts so that others may understand them. That is the cell that has remained inactive for so long in most men that man is no longer able to exercise this power.

"The Chinese, however, retained this strange gift with generations of practice in spite of the spoken language, and in this way this cell did not depreciate in significance, as did those of his white brother.

"One who possesses this power through generations of inheritance, is enabled, with the strength of his own brain cell, to extend this influence even to the inactive brain cell of another, who may learn to repeat the ex-

perience in his own mind without assistance, from a subconscious memory of the sensations that were thus introduced. Hereafter he may converse with others who possess the same power, but because this power is of a secondary nature he may not communicate it to another.

"Two people who possess the power from inheritance may communicate over distances of a thousand miles, while secondaries are confined to short distances of not more than twenty-five or thirty feet, after much practice. The American has never known this power other than by secondary means, and that is the reason why I knew that Sir Lamar was not an American."

"Extraordinary," replied Lamar, making no attempt to explain his nationality, "you have supplied even me, who have spoken in this manner for years, with information that has always been hidden in mystery. Perhaps you could explain to us how this mental message travels from one mind to the other."

"It is a common physical phenomenon." Hi Ming went on to explain, "It merely makes use of a particular form of ether wave. Let us compare it, first with the voice. Certain vibrations in the air, easily generated by the organs of the mouth, cause the eardrum to vibrate in a certain manner, which the brain immediately identifies as corresponding to a certain definite thought. We call this art the sense of hearing, one of the five well known senses. However, although it is not numbered unless one might call it the sixth, there is another sense which is sensitive directly to vibrations set up in the ether, much in the same manner as that ingenious invention, the wireless, is sensitive to a certain type of ethereal vibrations. But in order to communicate by radio the sender and receiver must know a common language. The same is true of mental telepathy only in a much broader sense.

"While an American cannot communicate with a Chinaman by radio, he may do so by mental telepathy, because the two persons will both have many thoughts in common. Both have a word for house which may sound different to the ear, but which creates an identical impression upon the brain; not as a picture in actual outline, but as a place in which people live, regardless of size or shape. I may not communicate with a baby, who has not yet learned to speak, except in an insignificant manner, because the child has not yet definitely learned to associate an idea with the impressions made upon his brain by his other five senses. Do you understand me?"

For the first time in my life, I saw mental telepathy, not as a transcendental mystery of the supernatural world, but as a natural physical force. What could be more simple than the explanation just put forward by a master of an art that had mystified the world for centuries. The Chinese and the natives of India have both been accused many times of exerting this mysterious power. Stories come from reliable authorities, who have spent their lives in India, and who tell of Hindus who have spent their lives in isolation, yet who are kept constantly informed of the news of the day, even though they may be a hundred miles from the nearest outpost of civilization, or of humanity of any kind.

Hypnotism also seemed to be clearly accounted for. Could not one who possessed this wonderful control over the human mind, influence another by making him see things that did not really exist. He could paint pictures and create sounds similar to sounds and pic-

tures already held in subconscious memory from actual experiences, that would cause the victim to mistake this vision for reality. Was it not possible, since we already knew three different kinds of ethereal disturbances in light, radio, and the newly added gravity, that there could be a fourth? It was a material explanation for that sense, sometimes called the sixth, which warned people that there was another presence in the room. Couldn't the proximity of two minds in the same room, each physically unaware of the other, set up slight ethereal disturbances between one or other? This again leads to an explanation of why people believed that they had seen a ghost, as the result of some abnormal fluxation of this hidden cell. It is this cell that is the lone, involuntary, connecting link between the conscious and the subconscious mind, and which keeps awake, when all other parts of the mind are asleep, answering to every little nervous motion, that resembles any impulse that we have before experienced.

The meal continued after many admirable comments with the long awaited account of our adventures as related by Doctor Longhorn. To this discussion, Longhorn added much of the news of the world, especially what he knew about that of China; and then came the time for Hi Ming to relate his.

"It is a long story that is best made short," the Chinaman modestly admitted, "one that is simple in its way, but which grew out of, perhaps, the same impulse that drove you to leave the earth. I have been many places in my life which have appealed to me greatly, but wherever I traveled, regardless of distance, I dared not stay more than three days, before I would be followed by the smiling face of our Satellite. It called to me from day to day until I could no longer restrain my mad desire to reach it, for I pictured that I would find here, things more wonderful than anything I have ever experienced before. I determined to make the trip at any cost. It may seem strange to you that I should employ anything so dangerous as the Goddard rocket, but this seemed to me the most promising and being incapable for my want of knowledge, of constructing a better, I satisfied myself with this, fueling it with a concentrated form of nitro-glycerine which I invented myself.

"I set out upon this hazardous venture with four companions, who traveled as my crew under the conditions that I could promise them a safe return. They knew well the risk of death, but they feared being marooned upon the moon, even worse than loss of life. Unsuspectingly I promised them that I would return with them safely within a year unless we were killed.

"Of course I took for granted that a landing otherwise than fair would result in death, but this was not the case. For some reason beyond our control, we drifted around this side before we could make a landing, and upon doing so the ship grazed a rock and was destroyed beyond repair, with the result that one was killed, while the rest of us miraculously escaped with no more than a few small scratches and bruises. The fact that we landed upon this side and not upon the other made it impossible to return by the same means, for a rocket shot from this side, with enough force to carry it out of the moon's influence, could hardly be safely turned towards the earth, nor by shooting it in a circle could enough momentum be obtained to carry us into the influence of the earth.

"I would have been satisfied, but my employees worried me continually by reminding me of my promise

which I could not possibly fulfill, and when they found that I could not, they became angry, and have threatened to avenge the wrong—in their own words—as soon as the opportunity is presented.

"However now that you are here, we may easily return to your 'Space Flyer', back on Mt. Erastosthenes by means of ten ships now under construction for the purpose of encircling the moon, but which are much too small for space flying purposes. Perhaps Dr. Longhorn may find it not an impossibility to install his ingenious anti-gravity device in these ships, to make them safer."

The Doctor thought ponderously for a moment. "It will mean relining the ships with my special alloy, would it be possible to do this?"

"By a remarkable coincidence," returned Hi Ming, "the walls of these machines are composed of a metal similar to your alloy, although they contain more iron and cobalt in proportion to the nickel and other elements of which yours is composed. Perhaps we may be able to make these work just as well. The compound was selected more for its durability and light weight than for anything else."

The conversation began to lull after that. Hi Ming supplied us with an oriental cigarette, which, he stated, was part of a fast disappearing store that he had brought with him five years ago.

"I have been wondering how it was that Sir Mioga learned to speak the English language so well," Lamar ventured. "To me this has been one of the most surprising incidents of all."

Sir Mioga smiled, puffed his cigarette like an expert, and every now and then he would pause to shake the ashes gently upon the border of his plate. "It is a law in Rionia, that the President master every available tongue. Before the arrival of Captain Ming there were only three such languages upon the surface of the Moon, but, as welcome as he was, he brought three of these obstacles with him in the form of Chinese, a most difficult tongue for a Rionian to master, and French and English, the first and last of which I have never regretted, for I have since had a number of opportunities to use them. I have not been so fortunate with my French."

The meal was interrupted by a knock at the door, a messenger entered and informed us that we were nearing land, and who thought perhaps we might wish to step up on deck and admire the scenery. We did so immediately and were much impressed with the beauty of the city as we entered the titanic harbor of Cherome, the capital of the Rionian Nation, which was built more on the plan of London than on the skyscraper plan, typical of most American cities. It carried about it also that atmosphere of newness that is characteristic of the snow-white city of Washington, which led us to believe that perhaps Cherome was not very old, though it was quite extensive and included acres and acres of flat low government buildings, spaced between trees and occasional towers and bridges, and each a monument to the branch of government which it represented.

Before retiring (I dare not say before night, for days were measured as the sum of an eight hour rest period and a fifteen hour period of action, in Rionia, regardless of light or darkness). We were called upon to address huge crowds of enthusiastic Rionians, through an interpreter, who welcomed us more from the reputation of Hi Ming and of the people of the earth.

For the next three days, Dr. Longhorn spent much of his time at the huge workshop where the machines were under construction for encircling the moon, ascertaining whether or not it was possible to install his anti-gravity machines with favorable results. Meanwhile the Secretary and myself, having nothing else to do, explored the city in company with Sir Durnle who acted as our guide. After this experience I am positive that every civilization, that has advanced noticeably along mechanical lines, will have its automobile, for the first dream of man after discovering an engine which may be substituted for man or animal power, is to harness it to his carriage. The Rionian substitute for an automobile, was a platform on wheels, with an iron railing about the outside, lined with upholstered benches all facing toward the center. The driver sitting in the exact middle axis near the front to steer there was naturally no seat directly in front of him which might obstruct his view. These machines were much larger than our own of course, and were capable of carrying from ten to twelve passengers and traveling seventy miles an hour.

CHAPTER X

The Race for Life

ON the evening of the third period of action, Dr. Longhorn informed us that the ships had not only been supplied with his simple anti-gravity apparatus, but that they were actually ready for flight. It was the next morning at breakfast, with the three of our party, the President and Hi Ming, that we received the astounding information that the three Chinamen, employed by Hi Ming had made off with one of the ships, and had been gone for an hour, before the guards had been found gagged and tied.

Hi Ming's face turned from yellow to purple and green and for a moment we thought that he was going to faint. Then suddenly he jumped up in a confused state of excitement.

"There is no doubt about what those devils are up to," he cried angrily. "It is their manner of obtaining their promised revenge upon me. I should have foreseen it. They have learned about your 'Space Flyer' around upon the other side of the moon, and have seized one of our exploring vessels to reach it hoping to cut us off, and abandon us here for life. Tell me quickly, will they know how to operate it? Is it easy to operate?"

"Good Heavens, yes!" exclaimed Longhorn. "I have left the general plans of the machine lying loose in a drawer. Why I did not even bother to lock the thing. Hurry, we have one chance left. We must head them off. Also we must have a roll of cable, and a powerful electric magnet with a diameter of at least six inches. Who can secure these for us and have them down at the hangar immediately."

"I can secure the magnet at the Museum of Industry across the street," volunteered the President. "You will find the cable at the hangar. Hurry to the official garage and take a car. Order the chauffeur to ring the bell and clear the streets. I'll follow directly behind."

A few hurried words were exchanged, while, on the run, we reached the garage, and fairly lifted the startled chauffeur into his seat, who with our constant urge to hurry, started the motor, and we were out of the garage clanging the bell, and tooting the siren at full blast. It

was the signal for all other vehicles to clear the way and cease all motion, which they did with some surprise, while we tore through the maze of avenues, between government buildings, shops, parks, and residences, across bridges through lanes and at last to the huge edifice that contained the several machines, through the door and straight up to machine number four.

We found the necessary cable wound upon a drum, which in turn revolved about a fixed axle; and with the aid of six men we managed to hoist it aboard just as the President, puffing for breath, ran up and presented us with the magnet.

Sir Mioga was so elated at the abrupt departure of Hi Ming, that he insisted upon going along to see us off.

Still dazed, in no more than seven minutes after we received news of the theft, we were off the ground, escorted by a formation of two other ships. Like "The Investigator," "Ship Number Four" was designed chiefly for horizontal flying, but we were forced into an uncomfortable steep upward incline from the very start, because of the high altitude to which we were forced to climb, and because we wished to avoid the delay of circling about, when a second lost might mean that we would be abandoned for perhaps years, if not for life.

From the air, the land in the great hollow of the moon, except for extensive vegetation, resembled the volcanic surface of the other side, but much more irregular, the contour of the formations being partly destroyed, when the collapse occurred. These things, however, held little of interest for us, because our minds were all set on the wall ahead. Up, up, we climbed until the clouds disappeared below, and the stars came out, forming a huge crown of diamonds about the flaming sun.

"To fly almost directly over the south pole will provide the shortest possible route," Sir Mioga conjectured, "as Cheroke is situated fairly opposite to the location of Mt. Erastosthenes and very close to the South."

"What speed do you expect of your machine?" asked Longhorn of Ti Ming.

"It will accelerate three thousand miles an hour until the fuel runs out," returned Hi Ming. "That is; at the end of an hour we should be traveling three thousand miles an hour."

"And how far will your fuel take us?"

"The ship has a cruising range of 8000 miles," replied the Chinaman, "perhaps a little more."

Dr. Longhorn raised his brow in thoughtful speculation. He drew out a pencil and performed a short calculation upon a bit of scratch paper; said nothing; tore the paper up and threw it in the waste basket with an air of troubled concern.

"Give her all she's got," he commanded.

In less than fifteen minutes we had cleared the precipitous chalky cliffs which marked the borders of human habitation upon the moon, and were traveling once more over the icy gray soil of the moon's outer surface, already too familiar to us, under the blinding rays of the sun which we dared not take the time to avoid. One miss of a rocket-fire might mean a tardy-ness which we should never be allowed to forget.

We crossed the pole, finally into a welcome darkness, and an even more welcome light from the earth, which we acknowledged with a shout of joy. Sir Mioga gaped in wonder, for it was the first time in his life that he had ever seen another world so close.

"What a beautiful place in which to live," he exclaimed with joy.

On we sailed, out across the walled plain known as "Short," which forced us up to 16,000 feet to avoid the towering mountains that enclosed it. It was well that we did, for shortly we were flying over the walls of Moretus at an even higher level. A few minutes later and one of the largest formations upon the moon appeared, a volcanic formation embracing 16,000 square miles within its walls and having a diameter of 142 miles. Illuminated by the Aurora added to the light from the earth, the entire system certainly presented an alluring sight.

Soon we lost track of this also and again but one question filled our mind. We wondered whether the deserters ever found the "Space Flyer"; and if they had found it, we could not help but wonder whether or not they were able to safely leave the ground. Even had they attempted and failed, all would be lost for the machine would most certainly be wrecked.

Two broad white bands on the surface, one upon each side of us, announced that we were entering the region of Tycho, one of the most talked of formations upon the moon's surface, visible from the earth. During the full moon, these broad bands, just mentioned may be seen radiating to the four "corners" of the moon's surface, obscuring every formation, large or small, that lies in their path, with their brilliance.

"Salt," announced Longhorn noticeably unconcerned, "a lasting reminder of the vast oceans that once spread themselves over the surface. The sea gravitated away leaving the salt to fill up the huge cracks that occurred at the time of the catastrophe. Salt deposits upon a small scale have been found in India resembling the star radiation typical of Tycho."

During the entire trip we were conscious of the fact that the southern section of the moon was far more mountainous than the northern half, nor was there any sign of change until we had progressed as far as 30 degrees South latitude where we left the mountains to pass out over the silent expanse of Mare Nubium. From then on and until we reached the equator on the tenth eastward meridian, the scenery, compared to that which we had just witnessed, was exceedingly dull and unattractive. And then, perhaps since we were but fourteen degrees from our intended goal, we took no note of the scenery at all.

The remainder of the trip, seemed to be measured in ages, even though it was a matter of minutes for we were now traveling nearly four thousand miles per hour. Suddenly the Doctor turned to Sir Mioga. A true fighter often resorts to desperate means, rather than face the humiliation of defeat.

"If they are gone," he shouted, "our only hope lies in immediate pursuit. I will buy this ship from you now. We will leave you and the crew off here and you can join the others in the other two ships, and return. We'll make it somehow. Slow down!" he commanded the crew.

"Don't!" shouted the President, "don't anyone touch those controls on penalty of imprisonment."

"Are you insane?" shouted Longhorn, excitedly, "we have to leave you off."

"Oh no you don't," returned Sir Mioga stubbornly. "Do you think that I am going to let you lose your momentum because of me? It will take you over an hour to get up this speed again and maintaining it may be your only chance."

"But you are the President of a powerful nation,"

argued Hi Ming. "Your suggestion is impossible. Crew," he commanded, "Slow down!"

"Move that throttle one way or the other, and I'll blow your brains out!" roared Sir Mioga, turning upon the pilot with his ray gun.

"In spite of the excitement of the moment we were all forced to look down upon the scene of our first arrival upon the moon, and as the mountain peak loomed into sight, upon which we knew the "Space Flyer" was at one time perched, our hearts became hot lumps of boiling lead. With a terrifying swoop we dropped swiftly down towards the great peak, circled it, skidding madly sideward as we did so, and observed with bitter dismay that the "Space Flyer" was no longer there.

"It's gone!" We all wretchedly acclaimed.

"Up quick! Straight up!" commanded Sir Mioga severely, still covering the pilot with his gun and surveying him with sternness.

"And grab something solid for your life," Longhorn warned.

"Sir Mioga, I shall never forget this."

Hi Ming had tears in his eyes.

We all clung to the railings and dug our heels into the floor, as the tiny machine, not designed for traveling straight up and down, zoomed into an upward swoop, and, in spite of our efforts, half of us rolled back over the solid steel partition, and Sir Mioga was forced to place the ray gun back beneath his belt. It was indeed a desperate ride.

"The other two ships are following us!" Lamar belated.

"For Heaven's Sake! Radio them to go back and wait for this ship to return," Longhorn commanded. "Here I'll do it, I'm nearest—and no I can't speak the infernal language—you'll have to do it, Captain Ming."

"The Chinaman crawled into place, spoke a few words over the transmitter, and one by one we saw them fall behind.

"We have to economize on fuel," Longhorn explained, "we may run out of our own. If we do we shall have to glide back and return with them."

For awhile we stood silent, listening to the constant drumming of the rocket explosions, acting to increase our speed, perpetually. From time to time, Dr. Longhorn would pull himself up to the telescope, and bracing himself against the wall, would gaze silently into it, keeping a constant lookout for the missing "Space Flyer". Everyone's nerves were on edge as I could see by the constant unconscious twitching of their fingers.

We had but one destiny. The earth, in all its loveliness, loomed soft and beautiful, directly above us, and unless the three run-aways had lost their way, they were to be found, if at all, somewhere in the space between us and the earth.

"What chance is there of our overtaking them?" I asked impatiently.

Dr. Longhorn answered almost immediately. "The 'Space Flyer'," he explained, "has a maximum acceleration of two thousand miles per hour. This machine has three, and while they have an hour's start over us, they started from rest and we started with a speed of four thousand miles an hour to our credit, thanks to President Mioga. Our chances of ever seeing them again are very slim. However, if we ever do, it must be within an hour, as our fuel will take us no farther.

As the minutes sped by and still no signs of the rocket

appeared, we became exceedingly anxious. But at last, with a sigh of relief, Dr. Longhorn announced that he thought that he could make out the stream of fire from the rockets. A moment later he was positive that he could, and with one accord we all shouted madly for joy.

"Their speed is a little above that of what I expected," he announced, "we are not gaining upon it nearly fast enough."

"But what about the cable and magnet," I asked, "what are we going to do with it."

"That must be moved into the airlock immediately," he commanded, "as for what it is for, you will see when the time comes."

A moment later, and one of the crew drawing back what used to be a trap door in the floor, but which was now an opening in the wall, discovered that the fuel supply was almost gone. The "Space Flyer" was not yet visible to the naked eye. As we shot swiftly upward we all became more and more uncomfortable from the awkward positions forced upon us by the perpendicular machine. It seemed very lonely out there in space with nothing but the earth and stars around us and the moon, a great gray shield of silver, far below. Then, almost like a huge meteor, the "Space Flyer" loomed up ahead, spitting a river of fire, which flowed hundreds of yards behind it.

It was the signal to don our metal suits which were constructed upon a plan similar to the suits we had used before, but were lacking in a means of generating heat as I soon ascertained.

"We'll freeze if we venture out in these," I exclaimed.

Meanwhile we were slowly creeping upon our own noble rocket. Five minutes later we had gained until we were less than five hundred feet from our intended goal, when, as if racing to foil our plans, the rocket fire of the S-4 (Ship Number Four) missed a beat.

"Quick!" shouted Longhorn, "let me into the airlock, I must act immediately. Watch what happens through the window, and tell the pilot to steer alongside and stay out of the discharge from the "Space Flyer." Even as he spoke the firing missed another beat.

Dressed in the grotesque metal uniform, the Doctor disappeared immediately into the airlock and slammed the door. And then, after a few seconds of anxious waiting we witnessed a wonderful thing. We now were moving a little to the side to avoid the spray from the huge cylindrical space flyer's discharge. Then, suddenly from the airlock of our S-4, a long cable shot out towards the other machine in a beautiful curve, on the end of which was the little magnet, and while all of us exclaimed in surprise, the magnet stuck fast to the side of the "Space Flyer", directly beneath its own airlock. Thanks to the lack of windows in the other ship, the inmates were still unaware of our presence.

Scarcely was the cable secured, before the dangling form of the Doctor himself was seen crawling weirdly along the cable, his rubber gloves, protecting him from any shock he might obtain from a short in the uncovered cable, while his hands pulled him along slowly, giving him the appearance of walking through water.

"Slow down the machine a bit or we shall get ahead of them," commanded Hi Mung, "and be careful how you do it. Don't under any circumstances change the course of the ship, lest we break the cable."

We all embraced the President and thanked him for the risk he had taken, especially Hi Mung, who promised to return at the first opportunity. Lamar had already

started out along the cable, and was shortly followed by Hi Ming and myself.

It gives one an eerie feeling to hang suspended in the universe by a single cable, between two rivers of fire. Because of the acceleration of both ships, we were conscious of a sensation similar to the effect produced by gravity, and I daresay that had we let go we should have eventually been dashed to pieces upon the moon, but it was hard to recognize this effect. Every direction seemed equally down. In fact I know no better way in which to be suddenly possessed with a true realization of the immensity of the vast field of stars about us.

Suddenly I was aware that the cable was beginning to lag behind, and turning to investigate the cause, I realized that the fiery stream that propelled the S-4 had ceased. The fuel had run out. In not so many more seconds, the "Space Flyer" which was accelerating would move ahead of the S-4 which was not, and the cable with Hi Ming and myself still suspended in the danger zone, would be enveloped by the discharge of the huge rocket. Even if our metal suits could provide the necessary protection, the cable would soon be melted through and we would be dropped back upon the moon. Frantically we increased our speed along the cable but it was destined to be a losing race, if we could not in some manner increase our speed. We could not, and the open blast-furnace slowly approached us threateningly. I imagined that I could already feel the scorching heat against my body. Forced to turn away by the blinding flare, now but a few feet distant, we beheld someone open the airlock on the S-4, dressed in the proper uniform, and sever the cable with a file, while Dr. Longhorn on the "Space Flyer", seeing us free, pulled us frantically in with the assistance of Lamar. Even as they pulled, we suddenly felt our uniforms heat up to an almost unbearable degree of temperature and we realized that we were in the flame itself. We were out again in a second, however, and on our way safely up the shiny steel walls to the platform.

Once safe we turned and waved to Sir Mioga, for he it was who had cut the cable in time to save our lives. And then while we watched them, they turned the machine in a beautiful arc, and headed homeward.

"We are now ready for the surprise party," said Longhorn. "Here, I packed away four of those ray guns before we left—thought they would come in handy. Be ready to use them, but don't fire, unless an attempt is made to fire at us."

Slowly we lifted the trapdoor, and looked into the lighted room. There they were, all three Chinamen busily engaged in gambling, and huddled closely about the little table, all unaware of our presence.

Two of us had crawled into the room before they discovered us.

"Don't move!" shouted Longhorn, "I have you covered."

All three of them reeled about, upsetting a chair as they did so, and stared at us pop-eyed with fear. With a sudden glare of hate they eyed Hi Ming furiously. It was evident that none of them knew the English language.

Immediately, Hi Ming began to speak to them in a Chinese waterfall of angry words, translating the message in his mind so that even we could understand it.

"You Chinese Dogs!" he hissed, not hatefully. "Fools and Robbers!" Fools, because you thought to escape Hi Ming, and robbers who would attempt to steal an-

other man's ship. You shall be severely punished. And may"—I was suddenly conscious of a strange mock cunningness creeping over the complexities of the three stumped Chinamen, and turning a sideward glance toward Hi Ming I observed that he too, although looking forward, was not looking at the three deserters—"And may the devil take your infected minds," he finished in a strange, slow, uncertain tone.

And then suddenly wheeling about with such force that it startled me, he brought the butt end of his ray gun down upon the sneaking skull of another figure, a Rionian, who had crept up behind us.

"Molan!" exclaimed Hi Ming angrily. "You fiend, fall like the dog that you are." For a single second our attention was drawn from our captors, but it was a single second too long.

In the same second that a blinding ray of purple light leaped forth from our opponent's gun, Hi Ming, not waiting to discharge his own ray (for it takes a second to begin action) he hurled his pistol, knocking the other's gun upward so that the ray cut a gashing hole in the ceiling. The other two being more successful, both shot with amazing accuracy toward Lamar and myself. We escaped in the most amazing of "Dime Novel" fashions, by leaping agilely aside, more from instinct than from common sense, in such a manner that we hardly realized that we had escaped. I think the real reason that we accomplished this remarkable feat was because the Chinamen being so long used to the gravity of the moon, had tuned the ships own gravity low, making it easy enough for a man to leap across the room.

Dr. Longhorn and Lamar then brought into use their own weapons, with success, for the Chinamen, alas, were not as agile as we. In a single bound Hi Ming was upon the third, and for nearly a minute they wrestled, rolling over upon their backs and clutching at each others throats like two lions, but Hi Ming, being by far the stronger, finally picked up his adversary and hurled him against the wall, where he fell lifeless, as it seemed, upon the unconscious Rionian. It was a matter of seconds until we had them both safely bound.

We disposed of the mangled remains of the other two, and for the first time in a long series of exhausting events, we were allowed a moment to ourselves. Without half-realizing it we seated ourselves about the little table and remained thus silently for nearly five minutes, at the end of which Dr. Longhorn enigmatically exclaimed, "Perkins, I have been a fool."

We all looked up in astonishment.

"What in heavens name is the matter now?" I ejaculated.

"Because," explained Longhorn, "we did not need to do this at all. If we had only stopped to think instead of rushing madly out of Cherome on this foolhardy, dare-devil race, we could have remodeled one of those ships back in Rionia and made the trip safely in it, without all the inconvenience and discomforts that we had to go through."

"Impossible," returned Hi Ming. "We could not possibly obtain enough speed."

"That is just where the catch comes in," Dr. Longhorn exclaimed. "We installed my anti-gravity device as a safety precaution, not thinking at the time about other possibilities which might result from this addition. Do you realize that the S-4 could have gone all the way to the earth?"

"The fuel ran out the last minute," I reminded, fail-

ing to see the point. For there was more than mere heat. "But the inertia, my boy, or Newton's first law of motion would have been enough 'fuel' to carry it to the nebulae, if given time; for a body without resistance is destined to go on forever."

However that may be, for man will never cease to make mistakes; the deed is done. Four men set out upon a strange and unsuspected expedition from which but three returned. They found that another had preceded them, thus making a total of two expeditions that have sealed the gap between the earth and moon and have

successfully peered behind "The Eternal Mask", and returned with no less than a photographic proof of our accomplishments. But in accordance with a contract between President Mioga, Hi Ming and Dr. Longhorn, these proofs have been locked away from the public, if only for the purpose of delaying interplanetary communication until the world has been made worthy of this gift; for in Rionia there are neither contagious diseases nor destructive crime, and until we on earth have changed, the moon shall remain as before, except in fiction, "The Eternal Mask."

THE END

What Do You Know?

READERS of **AMAZING STORIES** have frequently commented upon the fact that there is more actual knowledge to be gained through reading its pages than from many a text-book. Moreover, most of the stories are written in a popular vein, making it possible for anyone to grasp important facts.

The questions which we give below are all answered on the pages as listed at the end of the questions. Please see if you can answer the questions without looking for the answer, and see how well you check up on your general knowledge of science.

1. What criticism is the decimal system of notation open to? (See page 967.)
2. What is its origin supposed to have been? (See page 967.)
3. What duodecimal relation can be found in the apparent motion of the sun? (See page 967.)
4. How is the position of the sun in space related to the elliptical paths of the planets? (See page 967.)
5. What did Galileo disprove? (See page 967.)
6. What is the jaguar incorrectly called by the Spanish-American? (See page 968.)
7. What is the tinamon? (See page 970.)
8. What is the swastika? (See page 971.)
9. What system for recovering youth (like the Veronoff process) is used in the story of the Ho-Ming Gland? (See page 1012.)
10. What curve is followed by the moon in reference to the earth? (See page 1024.)
11. What is the composition of the diamond? (See page 1030.)
12. What geological processes might we suppose act to produce diamonds? (See page 1030.)
13. After whom is one of the great craters or basins of the moon named? He was a Greek philosopher. (See page 1031.)
14. What contradictory name is given to a great area on the moon? (See page 1031.)
15. Who was Eratosthenes? (See page 1031.)
16. What criticism is the name Mare Imbrium for a place on the moon open to? (See page 1031.)
17. What density has been calculated for the moon as compared to that of the earth? (See page 1034.)
18. What is the mean density of the moon calculated to be? (See page 1034.)
19. Would the temperature of boiling water be the same on the moon as on the earth? Give your reason. (See page 1039.)
20. What is the principal feature of Tycho? (See page 1044.)

The Spring-Summer Quarterly

The **SPRING-SUMMER** Edition of **AMAZING STORIES QUARTERLY** will be out in a few days. It contains some of the very best literature in the range of science fiction. We especially recommend Mr. Coblenz's story, "The Man from Tomorrow," which is a mixture of the comic and serious—really the philosophic view of the ways of this earth.

There is little need of recommending any story by Bob Olsen, who has established himself as a great favorite with our readers. His "Four Dimensional Escape" appears in this issue.

"The Valley of the Blind," by Abner J. Gelula, is a very strong picture of a settlement of the blind living in perfect peace and happiness in the recesses in the South American jungle. And this is not all. . . .

In the Realm of Books

"*F. P. 1 Antwortt nicht*," by Kurt Siodmak. Published by Ernst Keil's Nachfolger (August Scherl) G. M. B. H., Berlin, Germany. 180 pages. marks 6.

The first letters and numeral title of this book *F. P. 1* (Flug Plattform No. 1) are the initials of the "Flying Platform No. 1," an airplane landing platform in this particular case being an artificial floating island, to be anchored midway between the Azores and Bermuda, and designed to facilitate flights between America and Europe. This island is built in gigantic dimensions; it is ten times as large as the "Europa" and weighs over 300,000 tons. The hollow platform is mounted on a series of very large hollow cylinders. Large, heavy nets lying on the bottom of the ocean connected with non-corroding cables will hold the platform in position. The hollow platform contains machine shops, storage tanks, engine rooms and quarters for the crew. The superstructures contain hangars for the planes and a luxuriously equipped first class hotel combining American ideas of comfort with European cuisine in other words: a swimming Ritz-Carlton.

Detailed plans for such swimming islands have appeared already in many technical journals and the writer believes that in the next ten years such islands will become a reality. As usual, the imagination of the scientific fiction writer is several jumps ahead of technical facts and Siodmak's fantastic prophecy of to-day will surely become a fact of to-morrow.

For years the railroads had everything their own way. Lately motor transportation has begun to offer serious competition to the rail borne vehicles, and though long distance overseas flights are still far from safe and offer as yet no commercial possibilities, the time will come when the Zeppelins and the planes will become serious competitors of the trans-oceanic liners.

Hansly, head of a steamship combine foresees this possibility, and when the first artificial island "F. P. 1" was about to be towed to its destination in the Atlantic he laid his plans to prevent the fulfillment of the contract, thereby to bankrupt the construction firm or to destroy the "F. P. 1" completely by sinking it.

He partly succeeds by causing sabotage on a large scale aboard the "F. P. 1" and by buying up the chief assistant to the builder, but the courage of the builder's daughter turns his machinations to naught, and the drifting helpless island is found in the nick of time. The damages caused by the saboteurs are repaired, the island is saved from sinking and it is safely anchored in its appointed place.

Siodmak has produced a little master-

piece of fantastic fiction. The tension, the uncertainty, the danger during the critical days when the "F. P. 1" is drifting isolated and helpless, is graphically described and is extremely convincing. It is a powerful thriller and its translation into English is to be hoped for, as it will provide excellent entertainment for all devotees of scientific fiction.

—C. A. B.

"*Black No More*," by George S. Schuyler. Published by Macaulay, New York. \$2.00

Several serious problems are facing the so-called civilization of the United States. Aside from "the noble experiment" of the hypocrites, and the Jew question, according to anti-sensitive *alias* Ku Klux Klan papers, the Negro question is perhaps the most serious one, to which an answer will have to be found. True we have several minor questions, such as politicians, crooked judges, officials and bankers, but there the answer is easy: hoard them on one or more of the war time steamers built apparently for the purpose of establishing a riveting record and set them adrift in a storm. Old man Atlantis would take care of them in excellent fashion, and how the noble experimenters would enjoy that awful lot of water in which they would disappear forever. The answer to the Negro question is offered by Mr. Schuyler in his book "Black No More," and a very scientific answer it is.

Dr. Crookman, a Negro scientist has discovered and perfected an electric treatment which changes any Negro into a nordic type. Not only turns their skin white, but the hair straightens and becomes blond and the racial features are completely altered. Dr. Crookman opens a chain of sanitariums all over the country and by and by there are no more Negroes in the United States. The bleached Negroes, indistinguishable from the real whites, merge with the white population, and panics result everywhere. Black babies are born to apparently white parents and heroic attempts are made to do something, but apparently nothing can be done.

The hero of the story, the first Negro to undergo the treatment, goes South and joins forces with an ignorant fanatical clergyman who founded the "Nordic Knights," with an ever watchful eye on the exchequer. He marries the beautiful but dumb daughter of the clergyman, who is later running for democratic president. He makes a serious mistake by employing a statistician in heraldry, also an ex-Negro to delve into the ancestry of himself, his friends and his enemies, with astounding results. When the statistician is through co-relating all established facts it is discovered that almost all aristocratic families and persons including the prospective president have a Negro amongst their ancestors. Un-

fortunately the republicans steal this damaging document and hell breaks loose. All the high officials of the "Nordic Knights" flee, but our hero, the coming son-in-law who becomes the father of a brown baby, takes all the funds along. Two other Nordic Knights who are not so lucky are captured and lynched.

Then the pendulum swings and to be a Negro becomes quite the fashion.

This book "Black No More" is one of the most amusing books I ever read. True, it is a cruel satire on our present civilization. Mr. Schuyler, a well known Negro writer, does not spare any one, neither the leaders of his own race, nor the whites nor their respective sympathizers. Most amusing is the take off on the Ku Klux Klan, with the absurd trifles resurrected and elaborated in the "Nordic Knights." The book will be poison to some people and an exceedingly bitter drink to quaff, because truth is always unwelcome and there is an awful lot of truth in this book.

I recommend it with all my heart.

—C. A. B.

"*The Gold Diggers*," by A. M. Fleming. Published by Meadow Publishing Company, 27 Beach Street, Boston, Mass. \$1.50.

There is a statement on the jacket of the book to the effect, that the author wrote it chiefly to amuse his friends. Friends are usually very tolerant and are apt to praise almost anything, and if Mr. Fleming has succeeded in creating joy in the hearts of his friends he has done a noble deed. To the outsider, who is not influenced by any feeling of friendship for the author and who has learned through bitter experience to approach a book by a relatively new writer with a feeling of deep distrust and suspicion engendered and kept alive by the habitual lying of the jacket writers, the "Gold Diggers" is a disappointment. We of the fantastic fiction clan are willing and ready to believe almost anything, and furthermore we want the unbelievable in large doses. And when the basis of the book is only two prehistoric animals hatched from eggs, which kept fresh for ages and ages (the egg trust should investigate this) and even when these two dinosaurs delve assiduously after gold nuggets and even go after a deacon's gold tooth, that is not enough to ring the welkin in scientific fiction circles. Even the addition of a bullfrog weighing 35 lbs. does not mean much.

The book fairly crawls with new characters throughout, all do something and all have something to say, all of which helps to fill the pages.

The "Gold Diggers" evidently is meant as a humorous story and as such may be enjoyed by those who are easily pleased.—C. A. Brandt.

DISCUSSIONS

In this department we shall discuss, every month, topics of interest to readers. The editors invite correspondence on all subjects directly or indirectly related to the stories appearing in this magazine. In case a special personal answer is required, a nominal fee of \$25 to cover time and postage is required.

ROCKET PROPULSION, HOW IT WOULD OPERATE IN COSMIC SPACE

Editor, AMAZING STORIES:

Although I have been a more or less constant reader of your magazine for several years, I have never written you a letter, preferring to watch others argue various points among themselves in your discussion columns; but now it seems to me you have done Mr. Swift of San Antonio a slight injustice in your comment on his letter in the December issue, where you were talking of the effects comparable to gravitation which are due to rockets. Your own statement is: "But as far as the simple propulsive effect of the rockets is concerned, if they kept the ship going at uniform velocity, there would be no effect produced upon the passengers, who might float around regardless of everything." Since the rockets make up the only force acting on the spaceship except for the gravitational force of neighboring celestial bodies and since that gravitational force affects all parts of the ship in the same manner and so produces no effects on the inside while as is comparable to gravity, it is clear that there will be an absence of effects comparable to gravity when and only when the rockets are inactive. This will be just as true in the vicinity of a black body like the sun as a billion miles beyond. Photo, the only requirement being that our spaceship shall be in a vacuum. Of course near the sun there might be a slight external force in the form of light pressure, but it, for a spaceship, would be practically negligible.

The best stories you have published in your magazine, in my opinion, are the Skylark stories by Dr. Smith. Mr. Campbell would be fairly good if he watched his science more closely, but the molecular motor which he insists on using is a flagrant violation of Newton's laws of motion and so in my opinion is inexcusable. Being only a college student, perhaps I take Newton's laws too seriously, and it is possible that a postulation of higher dimensions would give us more general laws which would allow Newton to break down in special cases. I myself am not in favor of the procedure, but it gives food for thought at least.

Marvin G. Moore,
206 N. Harvey,
Urbana, Ill.

(If a space ship got to a sufficient distance from the sun and the stars, it would be almost exempt from gravitation. There would be no air or not enough air to materially retard its progress, so that once it reached a sufficient speed, the rockets might be cut out and the ship would go on almost indefinitely without any propulsion; as long as the rockets are producing acceleration there will be an effect comparable to gravity. If there is neither acceleration or deceleration there will be no such effect. A great deal has appeared in our columns about the effect of acceleration and deceleration and the person subjected to either. We will leave the answer to your criticism of Mr. Campbell's work to be answered by him as he was the author.—Editor.)

SCIENCEERS REORGANIZE, AS THE OUTGROWTH OF THE ORIGINAL "SCIENCE CORRESPONDENCE CLUB"

Editor, AMAZING STORIES:

Would you be kind enough to inform your New York readers, by publication of this brief note, that "The Scienceers" club has been revived in this city?

"The Scienceers," an outgrowth of the original "Science Correspondence Club" founded by Walter L. Dennis, was one of the first story organizations of its kind. It flourished throughout 1930, but disbanded at

the end of that year like many other enterprises.

We have now reorganized the club, and are holding regular meetings here. We are seeking new members among followers of science fiction in this city, and we cordially invite all metropolitan readers of AMAZING STORIES to get in touch with us.

Membership in The Scienceers is free.

Allen Glaser, Secretary,
1610 University Ave.,
New York, N. Y.

(We publish your notice of the reorganization of "The Scienceers" with pleasure. We feel that we have had a part in the founding of all of these clubs. We regard them as friends of ours and go almost to the extent of considering ourselves a parent organization.—Editor.)

A LETTER FROM A CORRESPONDENT WHO WOULD LIKE TO HAVE CORRESPONDENTS OF SIMILAR TASTES TO HIS OWN, AND APPRECIATION OF THE EDITOR'S WORK

Editor, AMAZING STORIES:

Everyone seems to be writing into the Discussions Dept., so I may as well do the same. I'm not exactly a publicity hound, but I do enjoy seeing my name in print. Who doesn't?

AMAZING STORIES occupies an enviable spot in my magazine rack, of all the magazines which I read each week, it comes first as far as reading and enjoyment are concerned. I am a science-fiction fiend and consider myself a critic along these lines, because I devour about everything published in this field.

AMAZING STORIES has many excellent competitors, but none possesses the outstanding authors and format as does A. S. Clockey's "Swordman of Sarvorn" or the excellent and anxiously awaited second installment, Bob Olsen's "Purple Monsters" was good, as was "Beyond the Planetside." I have no favorite authors because all have their stuff—otherwise they would not be writing for your mag. Occasionally a story appears, which is not quite up to par, but what-the-heck, the other gems offset that.

There is one point that I have never been able to dope out to my complete satisfaction. That is: How do ye editors checkup on the science contained in stories? Do they have a staff of experts in the various fields of science, or do they merely consult encyclopedias, etc.? Surely the latter would involve enormous detail.

Seems to me if those readers who enjoy hurling brickbats into ye editorial sanctum would pause to consider the Herculean task entailed in editing and publishing a good magazine, their hearts would soften a bit and they'd cultivate. After all, an editor is only human, and therefore prone to err.

Whenever I encounter a "dud" story, I merely pass over it saying to myself: "Frank, my boy, think of ye poor editors in their office—dealing with scores of manuscripts, analyzing, criticizing, temporizing, not to say counting eye-strain and an irritable disposition. Surely they deserve some sympathetic understanding." And so, all ye other readers, let's unite to give our humble editors a "break." That's the spirit!

Creative writing is perhaps the finest vocational avocation if you will in the world. Seriously, I am contemplating it myself, but thus far have made slight headway. Persistence and constant writing are perhaps the primary requisites for success. My sideline has been contesting, which I have pursued for four or so years. Have won numerous prizes and hope to capture many more. Chemistry and electricity at one time claimed all my spare time. For many hours I have pursued and experiment in the quest of knowledge and,

perhaps, some remuneration. After several years of this, the fact dawned upon me that I was getting nowhere; that is, nowhere to brag about. Inadequate training and finances proved an insurmountable barrier to success. And so, I chose between two loves as it were: Science and Writing—the latter winning out. I would like to correspond with anyone having similar aspirations. And, thanks profusely for the space.

Frank R. Moore,
2516 Bagley Ave.,
Detroit, Mich.

(We will start by saying that we hope this will not be your last letter. We are always glad to get such communications as yours. We have scientific friends to whom we can appeal for special information and we also have a small but very satisfactory library covering the general topics of natural science, and we have a graduate in science and literature on our staff, so we manage to keep pretty clear of criticism from the standpoint of science. It is a sort of a comfort that unfavorable criticism seems in many cases to be unjustified. It is so easy to make assertions about things of which we have little direct knowledge. Another thing to be remarked is that science is changing constantly, which we might term the procession of the atoms gives a good illustration. The original idea was that the atomic weight of any element was an exact multiple of the weight of hydrogen. This is so near the truth that in chemical calculations as required by the analytical chemist it can be accepted as truth. But we know definitely that it is not exact. If we take the atomic weight of oxygen as our basis—16—the atomic weight of hydrogen is 1.008. A good deal might be written on the procession of the atoms. In everyday words, as regards atoms, we never know exactly where we are, the changes in theory are so rapid.—Editor.)

THE AUGUST COVER OF AMAZING STORIES NOT APPROVED OF, OTHER NOTES ON THE CONTENTS

Editor, AMAZING STORIES:

The August AMAZING STORIES cover, not good. Editorial, all x. "Swordman of Sarvorn," fair enough. "Atoms," good. "Last Evolution," O.K. Different presentation than expected. "Beyond the Planetside," very exciting type of tale. "Room for the Super Race," fine. "Purple Monsters," best. Illustration good. Many book reviews, fine. Good letter by Hasse. Am in agreement for demand for Murder work. All interested. THE TWIN TRAVELLERS and the FANTASY FARE TRAVELITY may communicate with myself, or, more directly, with Mr. Allan Glaser, 1610 University Avenue, New York City, New York. Look forward to "Romance of Post and Negs." Skidmore wrote "Dramatic Personae" in the Quarterly. Enjoyed it "muchly." "Lady of Life" should be good.

FOREST J. ACKERMAN,
530 Staples Avenue,
San Francisco, Cal.

(This short letter speaks for itself. The August cover has not been severely criticized and to our mind it is particularly good. Fore-shortening of the central figure in the blaze of radiations is particularly good and the general effect is light. We find the great difficulty in our covers is to prevent a too heavy touch by the artist. While extremely interesting, the Editor's life work is severe on the nerves unless he has a very fine faculty, and the writer, as a result, of forgetting the magazine as he steps into the elevator. It is to be anticipated that it will be within day and night, especially night, and all this makes it a soul-satisfying and terribly aggravating occupation. Editor.)

A NICE GOSSIPY LETTER FROM THE SECRETARY OF THE I. S. A.

Editor, AMAZING STORIES:

We sure got a lot to unload this time. The December issue was the best in a long time from the cover to the rupture ad. Beyond that I can only thank you for printing my letter.

Incidentally the "something drastic" happened I stopped over at Milwaukee on my way here from Berkeley (sounds funny, but it's true) and called on Ray Palmer. So we decided to reduce all due to lowest level. Right now representatives of the four local clubs are working on the new constitution. I haven't heard much about the Junior Association since I left home, but that I have seen in your journals about all the boy's sci-fi clubs looks like Jim's chance.

So the battle still rages merrily. One doesn't like Campbell because his characters' speak too dryly, and another doesn't like Smith because his are not dry enough. I might warn Jack Saunders what happened to the Chinese when they got too serious about a literary language. A person has to memorize four or five long books before he can write a letter, and half a dozen more before he can understand a very large percentage of letters written by others. By the way, where is Woodhaven? I can't find it on the map, and I like to locate folks I'm interested in. Myself, I like both the authors, and I'd jump at the chance to read any of Smith's stories re-written by Campbell or vice versa.

I've got it all over L. R. MacNichol; I've read every issue since the third. I was subscribing to *Science and Invention* when A. S. was started and I've always been insulted because I wasn't a subscriber.

That story "The Doubt," struck me at first as non-scientific, but as time goes on I realize that it was merely a new field of science. After all, there are other kinds of science than chemistry and physics and astronomy. This was psychology. Most of Dr. Keller's has at least some sociology. The "Vibration" in this issue had but one scientific fact in the whole story and that was the vibration rate of the earth. "Roadways of Mars" was of the "ready-made science" type which has a certain appeal in small doses. So far you have kept it down to the acceptable level. I like the magazine with the same initials a little too full of it.

I notice the later comments on "Posi and Nega" are more favorable, and while I can't agree with R. Ross in placing it among the best short stories even in the last year, I think it was pretty good because original. But this issue is the most original one yet. Let's have some more.

CLIFTON ARMBURY,
Secretary Pro Tem, I. S. A.,
1312 Q St.,
Lincoln, Neb.

(There must be many Woodhavens in this country. There is one in the vicinity of New York. If you address your letter to Woodhaven, Queens County, N. Y. it will reach your correspondent. We understand that the magazine with the same initials as ours is to be discontinued. We feel that the story "Posi and Nega" is quite a charming bit of fiction and it was excellently carried out to the conclusion. It is impossible to place the stories in any exact numerical order according to merit, because what will please one will not please another, but we may be allowed glad to receive what may be called classified appreciation on stories.—Editor.)

A LETTER OF EXCEPTIONALLY SEVERE CRITICISM

Editor, AMAZING STORIES:

I have often felt slightly moved to comment on your stories, but the "Discussions" of your readers are required to stay on the needed energy. In particular, this letter will refer to the November 1932 issue for the most part. As I do not keep my back issues, my reference to them, based on memory, will be perforce vague.

A few general comments come first, that apply to whole classes of stories: I see your readers like the "Skylark" series. May I offer a criticism of the background of the story? The background has given a fairly good proof that it is highly unlikely that life as we know it ex-

ists anywhere except on earth. One cannot fall to admit the strength of his reasoning (Ref. Eddington's "Nature of the Physical World"). Furthermore, as any philosopher will tell you, to speculate upon the possibilities of life other than as we know it—that is, life outside the 0°–100° C. temperature range, or not using H₂O as a fundamental, or not using oxygen either as fuel-burning or exhaust—is, in the opinion of many, about as intelligent as non-terrestrial beings are scientifically poor. Especially if they stake them of human likeness.

A second general point is the ray myth. You yourselves have printed an editorial on the wavelengths of "light rays" that fall into the unknown class: longer than light, between radio and heat, between X-and cosmic, and below cosmic. Certainly, the long radio-wave will offer nothing of interest. The short-radio waves will undoubtedly be carried clear down to long heat rays. The X-ray-cosmic ray hand will show increasing penetration, but no profound physiological effects. I doubt if any existing arrangement can produce waves shorter than cosmic, for sheer lack of energy. Perhaps the rays are of the "ground" type. Shall I speculate further on the absurdity of this class? One of your authors went so far as to classify rays by octaves, putting sound and light in the same sequence, and giving marvellous properties to the missing octaves.

I can formulate good arguments to show that television cannot become commercially practical without some principle that is not yet even dreamed of. Gravity control systems are all still meaningless.

Though still an undergraduate, I have completed more than the Physics requirements for any college in the country, at Harvard. Let me point out that scientists judge theories not by their rightness or wrongness, for nothing can be proved rigorously, not even the reality of self. Usefulness is the criterion. It is useful to assume that I exist, not right or wrong.

I state this last to illustrate what I mean by "meaningless." Anything so far removed from present knowledge as to be pure speculation on the part of the author, is a speculation on which "meaningful" things are based, and not serving in any way to correlate given observational data.

The suspended animation in the future has meaning, while in the past, it has none. We know enough about life to conceive of it now, but we believe that it could not have occurred in the past, because our knowledge is recent, and the process could not, we believe, occur accidentally. This of course applies only to warm-blooded animals, perhaps only to mammals.

I believe all time stories to be meaningless. All this seems to cut down greatly your range of available material. But, not so! Firstly, you accomplish one thing: You entertain. As pure fiction your stories are quite fair. I have only the highest praise for the "Skylark" set, and for several others on this count. Also, you can omit explanations and offer your principles as in the "Finger of the Past" by Dr. Breuer, of this issue, and assume the ideas, offer entertainment value as excuse. And it is good mental exercise to speculate on what would happen, given a set of meaningless ideas.

Now for a few comments on your readers' letters. I agree with Mr. R. Bames that the story of Posi and Nega was far fettered, and the series of "Lemurians" was disappointing, but I feel that they are quite beyond the range of possibility. Let me refer you to Wendell Phillips' lecture on "The Lost Arts" to show you what I mean.

Mr. Knight's letter was interesting as an essay on nothing. Mr. Hollis' letter gives a blatant expose of the feelings I enjoy when reading your stories. He is almost right (I think he says English movies are boring). They are the only foreign ones that are consistently worse than ours.

The Gravity Control School as you must see, is a school of meaningless ideas. No one can prove them wrong rigorously, but their theories do not sound useful.

It was a nice letter from Miss Robb, wasn't it? It has an excellent background, but I gather that she represents the use of slang by scientists. So do I. They don't use slang

as a whole. Your explanation of the "Relativity" ideas about the speed of light as the limiting mark of velocities was not very lucid, but quite accurate.

Mr. Japka is one of the few readers who has pointed out the important time element in scientific works. Scientists don't run around making epoch-making inventions in a month. Firstly, every discovery attributed to one man is but the correlation of the efforts of many previous workers, and some small portion of his own. Mr. Japka is an unusually discerning reader for his age.

One story which escaped all of my criticism is H. G. Wells' "The Man Who Could Work Miracles." He has assumed a most improbable case: a man who could work miracles—and he has made a fine, accurate story of it. He doesn't go into long scientific explanation, superficially clear, but is as full of holes as Swiss cheese. He says, "Here, take it or leave it!"

You once published a story giving the reactions of a Roman transplanted into the present day. The author justly refrained from trying to prove the possibility of such a transplantation, and concerned himself only with the reactions of the Roman, giving a somewhat malicious and unfair, but highly amusing and thought-provoking account of modern civilization. That was perhaps the best story you have ever published.

In my effort to cover a lot of territory in a relatively small space, I am afraid I have sacrificed clarity and omitted evidence to support my ideas. Should anyone be interested, I would be glad to go to greater detail.

I wish your magazine all the luck and prosperity in the world, only I wish you would do better than the one good story per two issues that you have achieved in the past.

ERIC DURAND,
3613 Norton Place, N. W.,
Washington, D. C.

(Sometimes one has to read between the lines to get at the real meaning of a text, but this correspondent does not hesitate to speak out his mind as they say and we are going to let the letter take care of itself. The position of Editor gives one a bird's-eye view of the contributions and stories which are published and also of those which are not published, and of the two groups. The very subjects which you find fault with are the best and you should remember very distinctly that our magazine is announced as a science fiction magazine and the last word of that qualification is "fiction." It is the nature of which you complain. Your letter is so long and explicit that we feel it can tell its own story. You will find that the altered Roman in the story criticized by you is just one of our shrewd ways and we are open to exceedingly severe criticism when we find the whole world bankrupt and it is fair to say because of the large expenditures on the absurdities of wholesale war.—Editor.)

A SUGGESTION FOR A SCIENCE CLUB. BUT WE ALREADY HAVE PUBLISHED LETTERS ABOUT SEVERAL OF THEM

Editor, AMAZING STORIES:

This is my first letter to "our" magazine. As I am an idealist, I am interested in social Utopias, and I thought it would be a good idea to start a science club with a scientific organization. I mean having it organized like a government of a future country in some of your stories. I like to make ideal governments on paper, but sometimes my theory hits a snag.

I have already got many ideas of my own, but I would like to see what other people thought up. I would be glad to correspond with other readers.

ANTONIO MEDINA,
4506 Main St., Apt. 101,
Kansas City, Missouri.

(We think that you would find that the majority of people feel that we are over-governed, that there is too much law. One of the old mottoes on subjects of government was "The Best Government is the Least Governed." The automobile driver finds that other drivers keep to the right even when there is no policeman to be seen and it is the same with the government, so if you do organize a club, don't give it too much government.—Editor.)

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W. J. Kirk, Pres., The Electro Thermal Co., 5542 Morris Ave., Steubenville, Ohio.

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ERRORS IN STORIES DUE TO THEIR PERIOD OF PRODUCTION

Editor, AMAZING STORIES:

After reading "Solarite" in an ancient, not so ancient, AMAZING STORIES (November, 1930, to be exact) I take it upon myself to make a few remarks. A couple of mistakes (?) though small caught my eye. During the probably three years since the story was written, two things have changed. First, in 2117 A.D. on the planet Venus, they find for the first time an element called Gorlun which the author calls the 85th element. I don't think that Mr. Campbell should think that in 200 years our scientists would not discover the 85th and 87th elements. In fact now, 3 years after authorship, the 85th is found and (I'm not sure whether they have really found it) or only think they have the 87th. Of course when the story was written, this would not have been a mistake.

Then the Venetian shows him a alah on which are the sun and eight planets, in 2117. Of course, this wasn't a mistake either, but things like that just catch your eye.

Please answer this question. Was a sequel to "Submicroscopic" ever published? If so in what issue? If not, is one coming? I'm in suspense.

What's your excuse for publishing such stories as "The Cosmic Steeple Chase," by Robert W. Wells. I could not "wait" to write you. Also I shall not "wait" for any more of his stories.

In the first place, if a cylinder as hot as this one were to hit "cold water" there would (to my knowledge) have been a tremendous explosion and a whole of a hole blown. Then the hero, heroine and her father look at it nonchalantly and then to bed with no further discussions and sleep! (Imagine that). The next day the cylinder is "completely cooled off." Then they salvage the manuscripts and a villain blackmails them into letting him go. Several times the villain escapes with the heroine and finally sends Harry, the hero (hair-breadth Harry fits), to his supposed death. But the villain is "fished" and killed. Then the author writes, "Let's have a look at the machinery." The two men rushed down into the machinery room and were shocked to see the clock blue ball a crackle with brilliant white sparks. The story ends and they get safely back to earth, but how—How they fix the machinery the author does not state. Another thing. The author states that the human beings (Earth-bugs) were the lowest in the scale of evolution of those gathered there. The earth is billions of years old and surely in a universe in which there are hundreds of billions, there must be some below earth. Then the author tells of a mineral being that reproduced by budding like the Hydra. The Hydra is very low in evolution (or comparatively so) or rather in the classification of animals (my mistake). Thus I wouldn't place these beings above terrestrials. (Personally I don't like to see old mother earth called lower than anybody else.) It hurts my pride. The author's plot was good, but I'm sure I could have written the story almost as good (though I'm not scientific enough). Why pollute his story with a villain?

As a magazine, I'm satisfied with AMAZING STORIES, but there are always improvements. I'm not going to crab though.

In "Submicroscopic" I understood that Courtney merely increased and decreased the distance between atoms. Is that true? If so, the same number of atoms would be present and he would weigh the same. Of course, this would ruin the story, but . . . Then, too, when the adjuster grew larger, why didn't it crush the balance on top of which it was placed? It would grow large enough.

Please remember that I am anxious about a sequel to this story.

Would like to know the present address of the "Science Correspondence Club" and "The Eastbay Science Association."

I am 14 and will answer every all letters written me by boys or girls a year or two older or younger.

This is a long letter and I am not writing it to get it published, but I wish you would print the paragraph before this one. Cheers for AMAZING STORIES.

Philip Turner,
Hiram, Ohio.

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(You were quite clever in the way in which you deal with these two older stories. . . We published a sequel to "Submicroscopic" entitled "Awful of Uim" in our issue of September, 1931. We think it very doubtful if there would have been a real explosion if the story were literally carried out in real life. Exhalation, unless enormously quick, does not constitute an explosion. You must remember that the cylinder was hollow and therefore did not represent a great amount of heat. But if you do not like the story we do not feel that we should try to force it upon you. As far as we can remember, yours is the only unfavorable comment on "Submicroscopic" that we have received. We think your remarks on "Submicroscopic" are cancelled by the fact that you want a sequel. This sequel you will find in the September, 1931, issue of our magazine. We will send you the addresses you wish by mail. —Editor.)

A LETTER FROM THE SOVIET REPUBLIC WRITTEN BY AN AMERICAN ENGINEER

Editor, AMAZING STORIES:

This being my second contribution to your Discussions Column; and since I seem to have a corner on letters coming out of Russia, I hope you will pardon the length of this epistle. I am a pleasure to have this opportunity of congratulating you on the fine selection of stories that appear in both your monthly and quarterly publications; especially the type Cloukey writes. Something really exciting came out at the end of each chapter; plenty of action there; however it would have been more tasty to have had "Harrison Lives," live until the end of the story. I am sure he was a scientific wizard. . . "Swordman of Sarvot" was well written.

I am sure "Boh Olsen" must have had a nightmare when he wrote "The Purple Monsters," and a decided distaste for "Stenoga." "The Careful Stenoga," I am sorry to admit that not all of this letter will be an admission of appreciation; however, I want to add that I am quite interested in your "Discussion Columns," but it seems to me that to read some of the sourcistic criticisms, and especially from some that are void of shining medals. . . It has always been an experienced fact with me, that almost any sort of criticism can criticize any person or thing in the world. . . But it is not advisable for that same individual to try and do better? It has always been my impression that critics of this type are seldom original themselves, yet are "winded" enough to have the distasteful knack of ridiculing some one else's hard work and thought. . . Somewhere I have seen written that there are about four and twenty ways of doing one and the same thing (I believe it was by Shaw). But sum it up for yourself, "If each person has four and twenty ways of doing a thing (which isn't far wrong) what's that tell me, would it be fair to say that if all these ways critics were taken to heart. . . Really I'd hate to read it. No matter what is that that a man finishes, he himself can always see his faults and mistakes; most accusations are progressive enough to make a better attempt the next time. You as an editor, have my most heartfelt sympathy, but rest assured that your efforts in the American that appreciates your efforts in trying to please the public; you are doing an honest and a good job, since the criticisms against you are few, considering the thousands that read your publications. I am sure your issues will be more successful as time goes on, because after all a knock, is really a boost, isn't it? . . . It is a grand and glorious feeling to find a copy of Amazing Stories lying upon my table when I reach home after a strenuous day's work, and I must admit that every thing else is neglected until I glance at the photographs or artists' conceptions and also the scenes, I am not much in favor of the continued stories, because a month is pretty long to wait, especially if you have to leave a fellow out in space that long without knowing just what will happen to him next time you find him. . . Occasionally I see sentences in some of the stories with reference to Russia: Let me add, that Russia is not at all the sort that some of our critics like to paint it, and once one learns to speak, read and write the language, and understand the people, he finds that they are really a better sort than most other nations and are really much like our own Americans in many respects, at least I am sure they have more

kindly regard for the Americans than for any other nation. . . . An Engineer with experience in many countries should at least be able to observe the honest efforts of this nation. Besides, I am an American citizen, with America nearest to my heart. Now in conclusion I will request that you keep up your splendid publications; in fact I like them so well that I am enclosing a cheque for my next year's issues.

Roy J. Leckrone, M.E.,
Machinistretrofit Zaved,
Kramatorska,
Kramatorsky, U. S. S. R.

(You are perfectly right in the general implication in your interesting letter to the effect that it is easier to criticize than to write. Anyone can criticize a story, but how many can write a good short story? Meanwhile, the magazine goes on receiving many letters which indicate great friendship for it among its readers. There is not the least doubt in our minds that people at large know very little about Russia. It is considered a very difficult thing for an American to learn to "Speak, Read and Write" the Russian language. The old Democratic Party in this country had a sort of motto that the best governed people are the least governed. The impression about Russia in this country is that the people are very much governed in Russia. They are in Mexico, but you very properly say that you do not know everything about Russia, the country where you reside. We hope you will continue to like *AMAZING STORIES*.—EDITOR.)

MORE COMPLIMENTS FOR DOCTOR SMITH

Editor, AMAZING STORIES:
I, contrary to the usual custom of your correspondents, will not attempt to destroy you with "Irish confetti," otherwise known as "bricksbats." In fact, I will attempt in my own humble way, to place a word or two around your noble (get that) brow.

I started my perusal of "our" magazine when the peerless Doctor Smith's equally peerless story, "Spaceshounds of I. P. C." first appeared and since then I have literally devoured all succeeding issues. Gentlemen, my digestion has been excellent and this I say "without fear of successful contradiction!"

As this is the first letter I have written to you, I will attempt to list my favorite stories and stories. First the authors. The two Doctors, Breuer and Keller, Jack Williamson, Harl Vincent, Dr. Edw. Smith, P. Schuyler Miller (his stories of Atlantis civilization are excellent, if a bit far fetched), J. Lewis Burtt, Murray Leinster and Neil R. Jones and many others too numerous to mention are my favorites.

As for stories, "Spaceshounds of I. P. C.", "The Stone from the Green Star," "The Jamestown Satellite" and its sequels, "The Planet of the Double Sun," and "The Return of the Spacelords" (Give us more sequels, please!), "Power," "The Birth of a New Republic" and Stanley Coblenz's, "Blue Barbarians"; "The Metal Moon" and a multitude of others were very good also.

Now for a question which I hope Ye Ed can answer. Sirius, if I remember correctly, is in reality a double star; that is, it has a dark companion about half its size and both revolve around a common center of gravity. If Sirius has any planetary system would the planets revolve around this center of gravity or either of the two stars? It seems to me that they would revolve about the gravitational center but would be strongly attracted by Sirius and its companion. However, I may be wrong.

Another point I would like to have your opinion on is this. Millikan, I believe, predicted that when our sun reduced itself to a dead body, that it would be a white dwarf which would be hurled into space, would form a new sun. The fact that so many stars such as Sirius and Algol have dark neighbors, which were once powerful suns, would seem to bear out this theory, would it not?

Lastly, I wish to compliment you on your features such as Editorials, Discussions, and in the Realm of Books, and to say that I am a "mere boy" of sixteen in the third year of high school.

Robert Gordon Murray,
632 Clarence Avenue,
Oak Park, Ill.

(You speak of Irish confetti. There is another product this time from the northern city of Ireland—Belfast butterflies, which are little chunks of iron, bolts, nuts and the like, with which the shipyard men pelt their opponents. The Editor's comment on the letters received but it sometimes happens that little comment is required because the letter is so full. We doubt if anyone would so large a meal of praise as Dr. Smith. We live in hope of getting more from him. Sirius' dark companion is not absolutely dark; it emits only one ten-thousandth as much light as Sirius A, as the large star is named. The companion Sirius B is one-fifth the diameter of Sirius A, but is of about 60,000 times the specific gravity of water. An average cubic inch weighs nearly a ton.

BACK NUMBERS FOR SALE

Editor, AMAZING STORIES:

The writer has to offer your newest readers every copy of *AMAZING STORIES* with the exception of the first six. As I have not read the first six issues myself I will gladly exchange any issues for these.

The numbers I have can be purchased piecemeal or as a whole.

It does not mean that I intend discontinuing my reading of your excellent magazine, on the contrary I am looking forward to the December issue which reaches our city about the tenth of the month.

Sincerely, the only objection I can raise regarding *AMAZING STORIES* is: It's a long time between the 10ths.

Your publishing of this letter in your column will be greatly appreciated.

Wishing you continued success.

Harry G. White,
1108 L St., N. W.,
Washington, D. C.

(We are very glad to publish your letter. We have received as you will have observed, in our Discussions Columns, many inquiries for back numbers and we publish your letter hoping that it will encourage some of our correspondents to fill up their letters. We are sorry that you find it a long time between tenths, but the time would be just as long if the time was between twentieths.—Editor.)

AN ENCOURAGING AND APPRECIATIVE LETTER FROM AUSTRALIA

Editor, AMAZING STORIES:

I have been a very enthusiastic reader of *AMAZING STORIES* for the last four years and during that time I have read practically every issue available in Australia, and I honestly say that there has never been a story published in either the Monthly or the Quarterly that I haven't thoroughly enjoyed although certainly some of the stories have been better than others. I have no fault to find with the artists. They all make a very satisfactory job of a very difficult undertaking, but there is one thing that I would like to criticize and that is the lack of skeptical readers who through ignorance or self-satisfaction, hurl ridiculous bricksbats at our fine magazine. I am not entirely without qualifications as a critic. I am a member of the Victorian Astronomical Society, employed in a large electrical testing laboratory, possibly the best equipped in Australia, and I am an ardent student of Jeans, Edington, de Sitter, and Einstein himself; I even flatter myself that I have a slight understanding of the last named one.

I discovered A. S. in a second-hand book stall just prior to a trip to America; I bought several copies and found they made fine reading on the trip. In Chicago, however, I was truly "amazed" by a Quarterly, not having seen one before. Of course I immediately got it. Returning to Australia, I was disappointed to find that it was well nigh impossible to obtain a supply of new copies, at a reasonable price and that is the state of affairs at present. I would like to know if it is possible to subscribe A. S. directly to Australia and receive the copies first hand. If so, what would be the subscription rates?

I am not going to give a classified list of stories or authors, in order of merit, because I feel that if I should shower one particular author with praises, I should shower the lot.

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116 E. Maple St.
Chicago, Illinois

I am very fond of stories of space travel and was particularly impressed by Campbell's "Islands of Space." I enjoyed all the stories of that series and I hope there are more coming. I enjoyed the "Skylark" stories and even part from the science they contained, the human element was very fine. I think it would be a good idea to have an Interplanetary Monthly after the style of the Quarterly in which "Islands of Space" was published.

I am also keen on "Forthright" stories of which there seems a scarcity at present. I could go on like this indefinitely because I enjoy all the stories you publish. I will have to sign off now, congratulating you on your superlative publication and wishing you all the best there is in the future.

Eric S. Palmer,
42 Hotham Street,
East St. Elda,
Melbourne, Vic.,
Australia.

(A very complimentary letter from Australia which is a source of true gratification to us, showing that our magazine is as favorably received in Australia as in New Zealand, well on the other side of the earth. Your question about the subscription is easily answered and we have placed it with our Subscription Department. There is no difficulty in your subscribing. The stories of the great going to our correspondents objects to very needlessly, as we think, are the ones which you like and we are glad to have our views upheld by a reader who evidently takes the stories as seriously as they deserve. The great going to be kept in mind that is we do not know what the future may have in store for us.—EDITOR.)

BACK NUMBERS FOR SALE

Editor, AMAZING STORIES:

I have been reading the AMAZING STORIES for many years and this is my first attempt at the Discussions columns. I have enjoyed every one of them and hope to enjoy many more.

Among the stories I liked best were of course "The Skylark of Space" and the succeeding stories by Dr. Smith. The bombshell buried between Dr. Smith and Miss Robb were interesting. What I liked best was Hyatt Verrill. He is the best author you ever had. Other stories such as "The Swordsman of Sarvon" will go far in making the AMAZING STORIES.

I have about sixty issues of AMAZING STORIES. I will sell them at cost price. I do not have them in complete order, but I will sell those I have. If anyone wants them please let me know. Here's hoping for a long life for AMAZING STORIES and peace in the ranks of Dr. Smith and Miss Robb. Also more of A. Hyatt Verrill.

Robert Kido
Cream Ridge, N. J.

(As you will observe, yours was one of many letters announcing that a reader had been published in the "Discussions" asking for back numbers that you should receive applications for the same. We thought that the correspondence between Dr. Smith and Miss Robb was very interesting and we thought it showed how criticism could be good natured without either party giving up their point of view. Dr. Smith, we are sure, will enjoy the way you speak of his stories in using the expression "of course" in stating your appreciation of the same. We are now running a very interesting story based on South American Indian life and the old legend of El Dorado by Mr. Verrill and we hope to have more from him in the near future.—EDITOR.)

A COMPLIMENT FOR ONE OF OUR AUTHORS — J. DAVID REID — THE GREAT INVASION OF 1955

Editor, AMAZING STORIES:

I am a reader of your magazine and I see by the October number you have a new writer — J. David Reid. I sure enjoyed his story, but it was too short. I am interested in clean, jerry and there is lots of truth in "The Great Invasion of 1955." I hope you will have Mr. Reid write a longer story next time. I was just enjoying it when it came to the end.

John Barrett,
Spokane, Washington.

(We will be very glad if we are able to publish a longer story by the same author. After all, in a short story, a sudden and unexpected end is generally a distinctive merit.—EDITOR.)

A LETTER FROM AN ARDENT READER WHO ENJOYS AMAZING STORIES

Editor, AMAZING STORIES:

As I have been a reader of AMAZING STORIES for over a year, I thought you might publish this letter for me. I read three Science Fiction magazines and I have to admit that yours tops them all. No, I have no bricks to throw at any of your authors, or at you, or at that artist of artist—Morcy.

Now to compliment you on the October issue. Boy! it was a honey from cover to cover—they were all excellent stories. I just finished "The Swordsman of Sarvon." Boy! it was all right. The best complete story to my estimation was "The First Martian." It was the first story I have read by that author. I would like to see a sequel to Williamson's "The Secret Star." If you, Mr. Editor, will put this letter in the Discussions Column—from an ardent reader from Colorado.

Olon F. Wiggins,
916 28th Street,
Denver, Colorado.

(AMAZING STORIES now is in a peculiar position. It has on hand so many good stories awaiting publication that the fact of there being so many involved two difficulties, one is the selection from the great quantity for the few which we have room to publish, and the other is if we use only those which we have on hand it will amount to cutting out our best authors, those whom we almost dare to call staff writers. A very pleasant feature of the editing of this magazine is that we make friends not only with our readers which we do, but with our authors and we wish the magazine could be three or four times the size it is.—EDITOR.)

MORE COMPLIMENTS FOR THE STORIES IN OUR MAGAZINE

Editor, AMAZING STORIES:

I have just finished reading the November issue of your wonderful magazine and want to comment on your excellent work. "The Doom of Sun-Phag" was a whopper. It kept me guessing all the time how it would turn out. Have a heart! Don't keep a fellow waiting so long! "The World of the Living Dead" is a peach of a serial, though I hardly can believe anything can beat the "Metal Doom." Three cheers for Harri Vincent! He certainly scored in "Faster Than Light." Keep up the good work Vincent and you'll knock 'em out!

Here is a list of some other good stories I've tackled. "The Lady of Light," "Room for the Super Race," "The Superman," "Seeds of Life," "Voice Across the Years," "The Planet of the Doodle Star," "The Return of the Tripeds," "The Sphere of Death," "All of the Lemurian Documents," "Spacebombs of I.P.C.," "The Burning Swamp," "The Black Planet."

These are just a fraction of the stories I've read. If I should try to comment on all of your stories you would go blind reading me. "Mekki But I can say that your stories as a whole are the best Science Fiction stories ever born. I am a boy of 14 and would enjoy corresponding with any "Science-Fiction Boy." Here is hoping you keep up the good work.

Robert Swam,
3000 Reisertown Road,
Baltimore, Md.

(We can only hope that we shall continue to receive your warm approbation and appreciation of our efforts. We consider that we have excellent authors and such letters as yours we think will act in a double sense, as an inspiration to them, for everybody likes to be appreciated.—EDITOR.)

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AN APPRECIATION OF AMAZING STORIES AND THE BASIS FOR IT

Editor, AMAZING STORIES:

I have read A. S. for a number of years off and on, but it is only recently that I have really become interested in it.

I fervently believe that Captain Meek started me off on the right foot with his "Submicroscopic" stories. Until recently the interplanetary stories were of little interest to me as far as facts were concerned though the stories themselves were good. But having recently read an article in a prominent magazine, on rocket experimentation, my views on the subject have been altered, my reading on the subject has changed from interesting fiction to scientific education.

As far as your authors are concerned, I find no fault, but some of course I prefer to others. Jack Williamson is a whiz, and I am almost impatient for the publishing of "A Vision of Futurity"; if this is as good as the serial, I shall not be disappointed.

I enjoy your magazine immensely, and you improvements could I suggest, except that more stories by Meek, Williamson, Dr. Keller, Olsen, Vincent and some others would be highly appreciated.

William Burch,
4104 Wabash,
Kansas City, Mo.

(We flatter ourselves that the authors you name are what we may call staff authors. Several of those you mention will greet you in early issues.—EDITOR.)

CALCULATIONS FOR AN ELECTRO-MAGNET WANTED. COMMENTS ON OUR EDITORIALS.

Editor, AMAZING STORIES:

Would you do me a favor and publish this in your "Discussions" Department. I realize that the many readers of AMAZING STORIES have professions and trades of all natures, therefore, surely some of them are interested in the subject of electricity and may have good knowledge pertaining to magnetism.

I desire to make an electro magnet, whose flux will have power sufficient to attract material, of iron, one, two or three pounds in weight.

So far I have failed in my tests and experiments but I realize my knowledge of the subject is scanty.

I would deeply appreciate this favor if any reader could supply me with this information.

I enjoy your stories immensely; also enjoy "Discussions" very much but the articles by T. O'Connor Sloane, Ph.D., interest me to the superlative point because the subjects are food for the mind. I always will be fascinated by knowledge that is written so it attracts one's attention instead of repelling.

Raymond C. Yost,
3501 Foster Avenue,
Baltimore, Md.

(The calculations for your electro magnet have to be based not only on the power of attraction but on the distance you want to win—two or three pounds of attraction to be exerted. If you will make up a core, U-shaped, three-quarters of an inch in diameter, and wind it with No. 18 wire, giving two or three layers, you will find that this will be powerful enough to answer your description. The best thing for you to do would be to make a few such magnets, until you find just what you want. To increase their action at a distance, make the legs rather long and parallel to each other. We hope some of our readers will take this subject up with you. We are greatly complimented with your remarks concerning the Editorials in AMAZING STORIES. It has been a great pleasure to write them and we are glad to learn that they give equal pleasure in reading. There is a lot of romance in science.—EDITOR.)

A SEQUEL ASKED FOR WILLIAM KOBER'S STORY "THE MAN WHO LIVED TWICE"

Editor, AMAZING STORIES:

"The Man Who Lived Twice" is the best story by far that you have ever had. My congratulations to William Kober for a fine piece of work. How about a sequel?

John Leon,
Reusselaer, New York.

(An Editor is always glad when a story which he has chosen has been approved of. It is also very pleasant to find an author appreciative and encouraged, and you are doing both for this writer. We shall hope for further contributions from him, but our trouble is specifically that we are overstocked with stories. We have more on hand than we can take care of for many issues.—EDITOR.)

A CHANGE IN THE TYPE OF COVERS OF AMAZING STORIES IS PENDING

Editor, AMAZING STORIES:

I do not approve of having the covers of AMAZING STORIES illustrate an interpretation of Science fiction instead of a scene in one of the stories. At least not on every issue. One or two covers a year of this type would be all right, but not every month.

Now that the Science Fiction magazine which Wesco illustrated regularly has been discontinued, how about having him do the covers and most of the illustrations for AMAZING STORIES? Wesco's covers and drawings are far superior to those of Morley. Perhaps you remember that Dr. Edward E. Smith in a letter to DISCUSSIONS (April, 1931) said "The first illustration of 'Skylark Three' was one of the best pieces of work I have ever seen, and described the occurrence perfectly."

I doubt that Paul himself could have done better, and I consider Paul the best of Science Fiction artists.

In the December issue of AMAZING STORIES as in the November issue the stories are very close in merit. A fine collection indeed, but poorly illustrated.

I'm certainly happy that A. Hyatt Verrill is back with us again. I hope that he does not remain away so long again.

Don't discontinue the Quarterly unless you intend making the monthly a two-page monthly.

I wish our magazine this best success for 1933.

Jack Darrow,
4224 N. Sawyer Ave.,
Chicago, Ill.

(A change of the type of covers of AMAZING STORIES is on trial and we are very much interested in watching for the reaction of our readers thereto. Hitherto the cover illustrations have been scenes from the stories. There is a very definite reason for our using one or the other artists. Morley is doing excellent work. The Quarterly, so called, which is really becoming a semi-annual, will be out shortly after you receive this issue. We will be very glad if the condition of things permitted us to illustrate AMAZING STORIES every month, and everybody else, we are waiting for the upturn in business and when it comes there is no knowing what may happen. We thank you sincerely for your good wishes.—EDITOR.)

A VERY HUMOROUS VIEW OF THE PSYCHOLOGY OF THE READERS OF AMAZING STORIES

Editor, AMAZING STORIES:

As a scientist I'd make a good well-digger. By an I'm nevertheless interested in scientific fiction. Something that arouses imagination stimulates thought; stirs such emotions as ambition, self-expression, and individual initiative (if one may be called emotions), brings to the fore invention and independent conception; something that does all these should be interpreted as a distinct necessity, or at least a progressive addition, by each profound thinker, by each "rugged individualist," and by each liberally-minded person. Scientific fiction is a part of one's education, and is making its mark in the culture of our race.

New ideas are the backbone and backbone of civilization. Originality and independence of thought effect advancement. If we look back

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In the annals of history we find that the greatest strides were made when people scratched their heads—and wondered, and got together, and evolved opinions.

Have you ever studied the average scientific reader? If you have, you've probably noticed a peculiar twinkle in his eye! Another characteristic is an obvious spark of cleverness and intelligence. Even if he is a tramp, and he enjoys scientific, I would stamp him as an "intelligent bum!"

All this is written as an introduction. My reason for having written this letter is to make a plea for correspondents of average intelligence—not too scientific—who would like to discuss theories, fantasies, and odd conceptions.

John F. Nary,
641 Tighman St.,
Alintown, Pa.

(We understand from the last sentence of your very amusing letter that you would like to have corresponding. A number of our readers have expressed this desire and you will have observed in our Discussions Columns the announcement of several Science Clubs organized for the purpose of bringing together people interested in the natural sciences. We have then science fiction of the kind which appears in our columns is highly appreciated by our readers and we are doing our very best to maintain the standard of our magazine. We trust our authors send us stories frequently and these are authors whom our readers like the most so you may be sure that you will be taken care of by us in the future.—EDITOR.)

A LETTER ON THE SUBJECT OF LIGHT

Editor, AMAZING STORIES:

In this November number there are two nice letters which show that there are still some people left who use their head for other purposes than just to hang out there. The letters in question are by Noel White and Fletcher B. Pope. Both treat the question of light. Those letters caused me to do my thinking cap and so I applied some "pure" logic to this well-known knotty (Nutty) problem. Here are the results: Light is a vibratory action in a medium which is part of and which interpreters and surrounds all matter and which itself is a state of matter so minutely divided, that it can not be confined in any matter subject to our manipulation. The natural vibratory rate of this medium is the velocity of light and electrically and being a natural rate, is constant for all amplitudes. The Michelson experiments failed because they were made in the boundary layer of the earth, which moves with the earth. If mirrors were used placed 1000 miles in space, the result would have been different. Analogy: Filterable virus repeating the experiment on the skin of a ship moving at a speed through the water. Result: Boundary layer does not show any velocity. Why is a mirror? Can a material surface reflect waves in a very different medium? At least doubtless. The surface of the material surface will also have an even ethereal surface and it is this surface which reflects the light. Proof: Mirage and the heavy layer, the latter especially; represents the whirling boundary layer between the ether native and in motion with the earth and the ether of space having a different motion. This also explains the difference between the corpuscular and wave theory of light. Since light moves in a state of matter, this matter being pertinent to all matter, a wave in one will set up a wave in the other. Again the filterable virus will conduct the experiment in water and conclude that a wave is a high speed motion of water molecules with no particular direction since molecules will pass him at, to him, high velocity (retrograde) in all directions. Hence, the force inherent in waves consists of particles travelling at high speed.

Since the velocity of light represents the natural rate of vibration of a certain medium, there is no reason to accept that velocity as a limiting velocity for all motions. The natural rate of vibration of air does not represent the limit of travel through air as proven by high velocity bullets travelling at several times the velocity of sound.

If any professional physicist would like to discuss this topic, he is welcome to my address.

F. G. Leir,

P. O. Box 875, Sayville, L. I.

(You are tackling a somewhat difficult subject, but we find your letter quite interesting; it is very easy to prove the existence of air, of water, or of any solid substance, but when we have to explain the velocity of light, we come up against what is known as the lumiferous ether and it is not too much to say that it is considerable of a puzzle and however positive writers may be in the treating of the ether, we believe that there may be very great modifications in the theory of light and of the ether in coming years.—EDITOR.)

AN ADMIRER OF AMAZING STORIES. WE SHALL INVESTIGATE YOUR VIEWS ON THE CRAIG KENNEDY STORIES.

I find your magazine getting better and better with each issue. Every issue brings it nearer perfection. The authors are getting good and the critics disgusted. The last is a sure sign of a good magazine. Of all your stories I like especially those containing mystery. I am glad you do not publish many stories about psychic phenomena, hypnotism, mesmerism, occultism, etc. In my mind they rank with phrenology. The fourth dimension stories I do not care for as my mind does not apprehend them.

I just got through reading some Craig Kennedy Stories by Arthur B. Reeves. I read the "Poisoned Pen," "The Deadly Tube," "The Invisible Ray," etc. His stories are not as futuristic as those of AMAZING STORIES, but they sure get them beaten in interest and in amount of science interwoven between the lines of fiction.

Perhaps you can get some authors to copy his style. I believe it is exceptionally good.

I think your magazine is better than the two or three other scientific "mags" on the market.

Samuel Greenspan,
13 Suffolk Street,
New York, N. Y.

(The list of subjects such as hypnotism and the like we certainly bow to keep out of our columns, as a rule. Hypnotic phenomena may be used a little. It is very pleasant to get a letter of appreciation even if it comes pretty close to some liberal disapproval.—EDITOR.)

A NEW READER EXPRESSES HIS VIEWS ABOUT AMAZING STORIES

Editor, AMAZING STORIES:

I stepped into a "back number" magazine store sometime ago and purchased a copy of your book, and was very much interested in some of the stories contained therein, as this was my first attempt in reading your scientific literature, which pleased me very much.

I also noticed in your Discussions Dept. that some of your readers seemed to favor some stories more than others, such as the "Specimens of IPC," "Skiatry Three" and "Skiatry Spec." I am sure that if it could be possible for me to obtain a copy of these stories in book form or otherwise, in conjunction with any other good stories of past issues.

I would be pleased to hear from you in this matter at your convenience.

Joseph Di Angelo,
854 Aldine Ave.,
Chicago, Ill.

(We hope, as you have been pleased with the first issue of AMAZING STORIES that has come into your hands, that you will keep in that frame of mind and that we shall have you as a regular reader. You will find a good many letters from correspondents who have back issues which they desire to sell. We suggest that you follow up some of these. You will find a very different, a special offer, the old-time issues and Quarterlies and the Annual we believe is unobtainable. One of our departments is making in conjunction with the editorial department a special offer of back numbers. This includes the obtaining back numbers from correspondents who write that they have them and who state what numbers they are. Your request will therefore be attended to by the proper department and if your wants can be supplied you will be notified.—EDITOR.)

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